

ANNUAL · REPORT

(*With SUPPLEMENT*)

MADE TO THE

URBAN SANITARY AUTHORITY

OF THE

CITY OF LEEDS,

FOR THE YEAR

1904,

AND PARTLY FOR 1905,

BY

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TABLE A.—Part 1.—Causes of death in registration sub-districts ; institutions as separate districts.

- „ A.—Part 2.—Populations, births, mortality at certain ages in registration sub-districts, public institutions being classed as separate districts.
- „ A.—Parts 3, 4, 5, 6, similar to part 1 for several quarters of 1904, and part 7 for the first quarter of 1905.
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- „ C.—Deaths classified as to cause, age, and district. Institution deaths allocated. Notes (see table 17).
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- „ E.—Part 1.—Births, birth-rate, deaths, death-rate for registration districts, and deaths and death-rate for municipal wards (institution deaths in both cases allocated) for the year 1904.
- „ E.—Parts 2, 3, 4, 5, similar for each quarter of 1904, and 6 for first quarter of 1905.
- „ F.—Births, deaths in Leeds from all and certain groups of causes, sickness, and meteorological data for each week of fourth quarter, 1903, of each quarter of 1904, and of the first quarter of 1905.

The material asked for in the new Local Government tables will be found as follows :—

- I.—In table D, part 2.
- II.—In table A for current and previous years.
- III.—Age groups in new table, pp. 76-7 ; localities in table B.
- IV.—Ages in table 17, p. 75 (altered from old table 17 to include ages), including, however, all deaths in institutions ; localities in table C, where institution deaths allocated.

ANNUAL REPORT, 1904.

To the Chairman of the Sanitary Committee.

SIR,

I regret to say that I cannot again record such an unprecedentedly low death-rate as it was my good fortune to report to you for 1903. No previous year on our record had shown so low a rate as the 16·6 of that year. The two with lowest rates were the immediately preceding year 1902, with a rate of 17·6, and the year 1894 with a rate of 17·9. No other year has had a rate so low as 18, and in only one other case for which we have returns has the rate been below 19.

In my last report I gave you the gross death rates in Leeds from the year 1865 to the year 1903, both inclusive. It is not perhaps necessary to repeat these tables on the present occasion. You will find in table I the rates for the present and the four preceding years as well as the average rates for the three preceding periods of five years, but in the annexed table (table 1c.) will be found the rates for each interval of five years back as far as 1865. It will be seen, as would be expected from what has been just said, that our death rate 18·0 for last year is below the average rate of any of the five quinquennial periods since 1865. It is also interesting to notice that in every succeeding quinquennium—with one single exception—the death-rate has been lower than in that which preceded it. The single exception was the one in which the first outbreak of influenza occurred. For though the last year of the five years 1890-1894 had the lowest death-rate on previous record, the rate of the quinquennium had been kept up especially during 1890 and 1891 by the disease last mentioned. The year 1893 also contributed to keep up the high

TABLE 1.

Annual deaths per 1,000 of the estimated population.

	All causes.	Seven zymotics.†	Consumption.	Bronchitis, pneumonia, pleurisy.	Other lung diseases, without influenza.
Five years, 1885-89 ... (261 weeks)	21·16	2·78	1·70	3·93	0·27
*Five years, 1890-94 ... (261 weeks)	21·16	2·52	1·61	4·43	0·31
*Five years, 1895-99 ... (261 weeks)	19·77	2·74	1·47	3·54	0·22
*Year 1900 (52 weeks)	20·40	2·98	1·43	3·78	0·21
*Year 1901 (52 weeks)	19·30	3·14	1·41	3·18	0·14
*Year 1902 (53 weeks)	17·59	2·00	1·31	3·23	0·18
*Year 1903 (52 weeks)	16·59	1·74	1·27	2·76	0·21
*Year 1904 (52 weeks)	18·05	2·57	1·40	2·96	0·18
1904 increase on 1903 „ decrease „ 1903	1·46 ...	0·83 ...	0·13 ...	0·20 ...	... 0·03
1904 increase on '85-9 „ decrease on '85-9	... 3·11	... 0·21	... 0·30	... 0·97	... 0·09

* Estimated of course upon the population calculated from the result of the recent census.

† Exclusive of membranous croup which the Registrar-General did not include in the seven zymotics until 1894.

death-rate of the quinquennium by its considerable rate from measles and its high mortality from diarrhœa, to the course and causes of which the special attention of the Committee was directed in the Annual Report for that year.

The death-rate for the earliest quinquennium for which we have figures was 28·9; for the latest 18·4. On the whole, we may consider that a fall of 10·5 deaths per thousand living is not an inconsiderable one, and that is the record as between the five years 1865-69 and the five years just concluded.

TABLE 1c.
Death Rates in Leeds.
(Five year periods.)

1865-69	...	28·9	1885-89	...	21·1
1870-74	...	27·9	1890-94	...	21·1
1875-79	...	24·6	1895-99	...	19·7
1880-84	...	22·9	1900-04	...	18·4

An improvement of that kind means an average saving of life estimated upon the population of 1904 of 4,726, more than half the actual deaths that occurred during the year. In other words, had the rate of mortality which obtained between 1865-69 prevailed in Leeds last year, the deaths instead of being 8,096, would have been 13,009. Although, therefore, as compared with the two previous years, the increase in our mortality is slightly disappointing, our death-rate is not so when compared with any longer period.

As was pointed out to you at the time measles during three parts of the year, and especially during the second quarter, was unusually fatal. The death-rate from this cause during the whole year was at the rate of 0·77 per thousand of the population—a higher rate than obtained in any year on which I have had to report to you except the year 1893 already specially mentioned, when it was 0·90. Whooping cough was also somewhat prevalent, especially in the first and second quarters. The rate for the whole year was 0·46, the same as in 1902, but higher than in any

other year since 1890, except that year and 1896, when it was 0·50 and 0·60 respectively, although in 1893 it came pretty nearly as high with a rate of 0·44. Diarrhœa, as usual, in the third quarter was seriously prevalent. The rate for the whole year was 1·01, which was considerably higher than in either of the two preceding years. It was higher also than in 1899, in 1896, in 1894, in 1891, or in 1890, although in the remaining years 1892, 93, 95, 97, 98, 1900, and 1901 the rate was higher than we had it last year. Accompanying such diseases as measles and whooping cough we generally have an increase in the diseases referred to as those of the air passages. The rate from this group, excluding phthisis but including influenza, was 3·21 last year, as compared with 3·09 in 1903. This was a lower rate however than in any of the thirteen preceding years for which the records are available.

TABLE 2a.

Comparative mortality of nine largest towns in United Kingdom in three periods.

1890-1893. FOUR YEARS.		1894-1897. FOUR YEARS.		1898-1903. SIX YEARS.	
Edinburgh	20·2	London ...	18·6	London ...	18·1
London ...	20·9	Edinburgh	19·1	<i>Leeds</i> ...	18·6
Birmingham	21·3	<i>Leeds</i> ...	19·3	Edinburgh	18·8
<i>Leeds</i> ...	21·9	Sheffield ...	19·7	Birmingham	19·9
Sheffield ...	23·0	Birmingham	20·3	Sheffield ...	20·2
Glasgow ...	24·2	Glasgow ...	21·4	Glasgow ...	20·9
Dublin ...	26·1	Manchester	22·8	Manchester	22·1
Manchester	26·4	Liverpool ...	24·9	Liverpool ...	23·6
Liverpool ...	26·8	Dublin ...	26·6	Dublin ...	26·3

COMPARATIVE STATISTICS.

The birth-rate in Leeds has been 28·0 against 29·1 in the 76 large towns of England and Wales, whilst the death-rate, as

we have already seen, has been 18·0 against a rate for the 76 towns of 17·3. Even when we compare ourselves with the nine largest towns in the United Kingdom, six of which, including ourselves, are contained in the 76 towns just mentioned, our rate is less favourable than in some previous years. We have again

TABLE 2.

Shewing the death-rates in the nine largest towns of the United Kingdom for the 52 weeks, and each of the thirteen week periods of 1904.

		First quarter of 1904.	Second quarter of 1904.	Third quarter of 1904.	Fourth quarter of 1904.	52 Weeks.
Edinburgh	-	18·3	17·2	14·7	16·2	16·6
London	-	18·3	14·8	16·4	17·0	16·6
Sheffield	-	18·0	14·4	18·1	16·7	16·8
<i>Leeds</i>	-	<i>20·4</i>	<i>17·6</i>	<i>17·7</i>	<i>16·3</i>	<i>18·0</i>
Glasgow	-	21·5	18·7	16·6	20·2	19·2
Birmingham	-	22·0	18·8	19·3	19·5	19·9
Manchester	-	22·6	20·0	20·9	21·7	21·3
Liverpool	-	22·6	18·9	26·9	22·0	22·6
Dublin	-	28·0	21·7	20·8	23·1	23·4

The rates are calculated upon the populations estimated by the Registrar-General for England from the results of the recent census.

gone back on the year's return to our old place of fourth in the list, and are handsomely beaten by Edinburgh, London, and Sheffield. It is in the first and second quarters chiefly, and to a less extent in the third quarter, that they beat us, and the cause was principally the greater prevalence of the three diseases already mentioned. In the fourth quarter our rate was lower than in any of the three towns just named except Edinburgh. The details for the several quarters in the nine towns will be found in table 2. I reprint in table 2a, from last year's report, the comparative mortality in these large towns in two periods of four and one of six years preceding.

HEALTH OF QUARTERS.

The fourth quarter of 1903.—In the year 1903 the death-rate had been much lower in the three earlier quarters than even the low rate for the full year. In the first quarter it had been 16·4; in the second 15·2, and in the third 15·6—an average for the three of a little under 15·8. In the fourth quarter the death-rate rose to 19·0, and, although the average of the year was the lowest yet recorded, the fourth quarter did not, as compared with the fourth quarter of other years, hold anything like so favourable a position. In the five preceding years, 1898-1902, the rate in the fourth quarter had only once, and that in the second of those five years, reached 19. The comparatively high rate in the fourth quarter of 1903 is to some extent accounted for by the prevalence of measles and whooping cough, which caused deaths at the rates respectively of 0·45 and 0·43 per 1,000 per annum for that quarter. The death-rate from diarrhoea was also rather high for a fourth quarter one, namely, 0·41, while the death-rate from the three lung diseases—bronchitis, pneumonia, and pleurisy—was 4·26. This rate was considerably in excess of the recent average for the fourth quarter from these diseases, that for the five preceding years having been 3·31. The diarrhoea rate was not in excess of the average (0·47) for those five years, but it was high for a year in which the autumn

mortality from that disease had been so low. The whooping cough rate of 0·43 was considerably above the average of the quarter for those five years, which was 0·29, whilst the measles rate was just under the average of the five years, which had been brought up to 0·50 by the high death-rate from this cause in the fourth quarter of 1902.

The temperature in the fourth quarter of 1903 had averaged 45·6°, the average of the maximum readings having been 48·4° and the average of the minimums 38·5°. The humidity of the atmosphere was 85·9 per cent. of saturation, the mean daily range of temperature 9·9°, and the rainfall 8·8 inches. The birth-rate in Leeds had been a little higher than that of the 76 towns—28·8 against 28·6—whilst our death-rate, as compared with that of the 76 towns, was 19·0 as against 17·3.

First quarter of 1904.—As compared with the fourth quarter of preceding year, the average uncorrected barometric pressure was practically the same. The mean temperature was 4° below that of the fourth quarter of 1903, the mean maxima being just short of 4°, and the mean minima 3½° below those of the fourth quarter. There was an inch and three-quarters less rain. The range of the temperature was about half a degree lower and the humidity nearly 4 per cent. of saturation less than in the fourth quarter.

The Leeds birth-rate and death-rate were respectively 28·7 and 20·5—the former fractionally, the latter 1½ per thousand above that of the previous quarter. As compared with the 76 large towns our birth-rate was below and our death-rate above theirs. Our death-rate from all lung diseases, including influenza but not consumption, was 4·6* against 4·5* in the preceding quarter, while our death-rate from the seven zymotic diseases rose from 1·8 to 2·4, an increase of 33 per cent.

* From bronchitis, pneumonia, and pleurisy the rate was 4·26 in the fourth quarter of 1903, 4·21, 2·61, 1·59, and 3·44 in the several quarters of 1904.

The number of cases of small-pox heard of as in the preceding quarter was 6. The number of cases of scarlet fever was 323 against 503, both of them below the average of the similar periods of the previous year. The number of cases of diphtheria and membranous croup reported was 104 against 96, again in both cases below the average in 1903. The cases of enteric fever were 53 against 112, the average quarterly numbers for the year 1903 having been between these two figures. Puerperal fever and erysipelas were recorded in 97 cases against 100 in the last quarter of the preceding year. The total cases notified as infectious were 618, or 256 below the number in the preceding quarter.

The deaths from measles were 114 against 50 in the fourth quarter of 1903, and an average of 31 per quarter in that year; whilst from whooping cough there were 95 against 47, and an average of 30. Both these diseases, as already pointed out, were already well on the increase.

Second quarter.—In this quarter the number of deaths from whooping cough fell to 72; even this was however more than double the average of the similar quarterly periods in 1903. The deaths from measles, on the other hand rose to 160, against 114 and 50 in the two preceding quarters, and against an average of 31 in the quarters of 1903.

The total cases of infectious disease reported to us (565) were 53 fewer than in the first quarter of 1904 and 309 fewer than in the fourth quarter of 1903. Erysipelas and puerperal fever were reported in 73 cases, as against 97 and 100 in the two preceding quarters, and an average of 97 in the quarterly periods of 1903. The enteric cases reported were 43 against 53 and 112 in the two preceding quarters, while diphtheria or membranous croup was notified to us in 76 cases against 104 and 96 in the preceding quarters. Cases of scarlet fever showed a continuous decline to 300, against 323 in the previous quarter and 503 in the last quarter of 1903. Small-pox had increased to 22 cases.

The death-rate from lung diseases other than consumption had fallen from 4·6 to 2·8 per thousand.* The death-rate from the seven zymotic diseases remained at 2·4 as in the previous quarter. From all causes the death rate was 17·6, a fall of 2·9 as compared with the preceding quarter, and of 1·4 as compared with the last quarter of 1903. The rate in the 76 large towns had however fallen to 15·3. Our birth-rate showed a slight decline, from 28·7 to 28·4, about the same as in the 76 large towns, although it was 1 per thousand below their rate.

The rain during the quarter had been less by upwards of two and a half inches than in the first quarter, and only half the amount that fell in the fourth quarter of 1903. The daily range of the thermometer, which averaged 15·43°F., was 5·9 degrees above the range in the preceding quarter and 5·5° above that of the fourth quarter of 1903. Taken along with the fact that the humidity of the atmosphere was only 66·5 per cent. of saturation against 82 and 86 per cent. in the preceding quarters, a considerable dryness of the atmosphere is indicated, and as the dryness was still that of a cold atmosphere with an average temperature of 56·4°F., varying from an average maximum of 61·3° to an average minimum of 45·9°, the conditions were those that are favourable to the spread of diseases like measles and whooping cough, and probably also to their fatality. The increased pressure of the barometer corresponded with this condition of anti-cyclone which, as I have previously pointed out, is apt to be accompanied by a spread of measles when that disease is present.

Third quarter.—In the third quarter the barometer still stood high, 29·89 ins. uncorrected—that is eight hundredths above the record in the preceding quarter, which was itself eighteen hundredths above that of the first quarter of the year. Some corrections have of course to be made for the increased temperature of the barometer. The dry bulb thermometer

* From bronchitis, pneumonia, and pleurisy alone from 4·21 to 2·61.

registered on an average 63.5°F. , 7.1° above the record in the previous quarter, which was itself 15° above that of the first quarter. The humidity of the atmosphere kept low— 67.9 per cent. of saturation—although 1.4 above that of the preceding quarter, which was 15 below that of the first. The maximum readings of the thermometer averaged 69° , 7.69 above that of the second quarter, while the average minimums were 52.4° , 6.6 degrees above the average of the preceding quarter. The diathermancy of the atmosphere, as shown by daily range of the thermometer, had appreciably increased, the readings being 16.56° , against 15.43°F. To compensate there was an inch and a quarter more rain.

The death-rate in Leeds stood at 17.7 as against 17.6 in the preceding quarter. The birth-rate fell 0.4 per 1,000. In the large towns it also fell 0.4 , from 29.5 to 29.1 . and their death-rate rose from 15.3 to 17.5 . Our mortality from lung diseases had diminished more than 1 per thousand. It stood at 1.7 , as against 2.8 and 4.6 in the two preceding quarters. The so-called zymotic rate, as is usual in the third quarter, rose to 4.7 as against 2.4 in each of the two preceding quarters, and 1.8 in the winter quarter of 1903. Of the 4.7 , 3.5 was ascribed to diarrhœa.

It will be noticed in this connection that the condition of anti-cyclone obtained more or less for six months, and that the lowest night temperatures averaged 52° during the last three of these. The whole rainfall in the six months was only 10 inches— $3\frac{3}{4}$ inches less than in the corresponding period of 1903. With the exception of about a fortnight in August (during which 2.8 inches, or half the rainfall in the whole period, fell), the quarter was an exceedingly dry one.

The infectious diseases reported were—12 from small-pox, a diminution; 320 from scarlet fever, a slight increase; 88 from diphtheria or membranous croup, also a slight increase as

compared with the preceding, but not as compared with the two previous quarters. Enteric fever was reported in 84 cases, typhus in 18, and continued fever in 1, or to speak more correctly in several of the cases reported as typhoid it was found that the disease was typhus, and the dwellings were treated accordingly. Puerperal fever and erysipelas was reported in 77 cases, whilst the whole reported group consisted of 639, as against 565, 618, and 874 in the three preceding periods of thirteen weeks each.

The deaths from measles fell to 68 against 160, 114 and 50 in the three preceding quarters. The deaths from whooping cough also fell to 26, as against 72, 95, and 47, coming thus below the average of the four quarters of 1903. The deaths ascribed to diarrhœa were 394. Our death-rate from diarrhœa has been already given as 3·5. This is also the number with which the Registrar-General credited us. The average in the 76 towns was 4·0, our own average for the preceding ten years was 3·4, our rate for the two last years having been somewhat unusually low. While the rate in 1904 was not an excessive rate for Leeds, it is apparently associable with the period of dry weather, dry atmosphere, and great disparity between day and night temperatures.

Fourth quarter—The deaths from diarrhœa fell in the fourth quarter to 35, from whooping cough to 15, from measles to 2, as compared with 394, 26 and 68 from those diseases in the third quarter. The diseases reported as infectious were 748, somewhat in excess of any of the preceding quarters of the year, but 126 fewer than in the fourth quarter of 1903, and nearly 400 fewer than in the average of the quarters for that year. Small-pox cases had increased to 24, scarlet fever to 352, diphtheria and membranous croup to 93, while continued fevers, in this case all enteric, fell to 87. Puerperal fever and erysipelas were reported in 103 cases.

The death-rate in the 76 towns was 17·5, the same as in the preceding quarter, but in Leeds it fell to 16·3, 1·4 below the rate in the preceding quarter. Our birth-rate also fell by nearly the same amount to 26·9, as against 28·1 in the large towns. The rate from lung diseases was more than double that of the previous quarter, that from the seven zymotics a little more than one-sixth of the rate in the third quarter.

The winter quarter was a very dry one—the rainfall being only 3·44 inches. This was accompanied, however, by a decrease in the average daily range of 5·5 per cent. of saturation; by a decrease of 13° in the average mean minimum temperature, and of 19° in the average maximum; naturally with such a fall in temperature notwithstanding the diminished rainfall, the moisture contained in the air was nearer the saturation point, the number being 83·95, against 67·93 and 66·54 in the two preceding quarters. The average mean temperature was 17° below that of the preceding quarter, and 10° below that of the second quarter. Barometric pressure still kept high, 29·83 in., practically the same as in the second quarter, though slightly below that in the third.

AGE MORTALITY.

In the report for 1903 I drew your attention to the very important and rather satisfactory change that had taken place in the mortality at different age groups. You will remember that in that report we compared the mortality at certain ages in the years 1889-1893, calculated upon the known populations at those ages at the time of the 1891 census, with the similar returns for the years 1899-1903, calculated upon the known populations at the same age groups in 1901, and you will remember that I pointed out that at every age group there had been a diminution in mortality; that this diminution was moderately well marked even under one year of age; that having been nearly 7 per cent. on that period, at the age group one to five it was nearly 18 per cent.; that the period five to fifteen did not show any great amount of change,

the improvement being one of only a little over 1 per cent. ; that from fifteen to twenty-five, however, the improvement again approached 18 per cent., whilst from twenty-five to sixty, which of all the age periods selected was that of greatest vigour and activity, the improvement was upwards of 21 per cent., and that even above the age of sixty the mortality showed a diminution of nearly 17 per cent.

The years for which these figures were got out, as was pointed out at the time, were selected because the census figures were available for nearly the middle of each period of five years chosen.

TABLE 3.

Births and deaths registered in the City of Leeds in the four periods of 13 weeks ended respectively April 2nd, July 2nd October 1st, and December 31st, 1904. Deaths in age groups.

1	2	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.						
		3	4	5	6	7	8	9
1904. Estimated population at these ages ...	Regis- tered Births.	At all Ages. 450,142	Under 1 Year. 11,791	1 and under 5. 40,545	5 and under 15. 92,283	15 and under 25. 90,597	25 and under 60. 189,347	60 and upwards. 25,579
I. Quarter	3,216	2,300	515	392	101	105	558	629
II. Quarter	3,180	1,979	468	396	77	78	486	474
III. Quarter	3,144	1,989	747	296	49	73	423	401
IV. Quarter	3,021	1,828	477	197	58	87	519	490
52 weeks. . .	12,561	8,096	2,207	1,281	285	343	1,986	1,994

TABLE 4.

Birth and death rates in the City of Leeds in the four periods of 13 weeks ended respectively April 2nd, July 2nd, October 1st, and December 31st, 1904. Death rates in age groups.

1	2	DEATHS PER ANNUM PER 1,000 LIVING.								
		3	4	5	6	7	8	9	10	11
1904.	Birth-rate.	At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	25 to 65	Over 65
I. Quarter	28·7	20·5	175	38·8	4·4	4·7	11·8	98·7	14·4	130·1
II. Quarter	28·4	17·6	159	39·2	3·3	3·5	10·3	74·4	12·1	98·7
III. Quarter	28·0	17·7	254	29·3	2·1	3·2	9·0	62·9	10·9	77·7
IV. Quarter	26·9	16·3	162	19·5	2·5	3·9	11·0	76·9	13·3	96·2
52 weeks . .	28·0	18·0	188	31·7	3·1	3·8	10·5	78·2	12·7	100·7

You will find as usual in table 3 the estimated populations at these same age groups, the number of births that occurred in each quarter, and the number of deaths at all ages, and at each of the periods just mentioned, in each quarter of the year, and in the whole year.

In table 4 these figures are reduced to rates per thousand per annum, the population having been calculated as usual by supposing that the whole population of the City, as estimated by the Registrar-General, is divided at these age groups in the same proportions as were recorded at the day of the census. Comparing the figures given in table 4 with those given in the two new tables last year (and which for convenience of

reference I repeat here), it will be found that the birth-rate, which had decreased from 33·4 per thousand of the estimated population at all ages in the five years 1889-1893, to 30·1 in the five years 1899-1903, had still further decreased last year to 28. The death-rate at all ages had been in the first period 22·1, in the second 18·7, an improvement of 15·2 per cent., and during last year, which as already said was not the most favourable, it was only 18.

Births and deaths registered in the City of Leeds in the periods of 52 or 53 weeks of the years 1889-1893, and rates on census populations. (*Reprinted from 1903 Report*).

1	2	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.						
		3	4	5	6	7	8	9
Population at these ages, census, 1891...	Regis-tered Births.	At all Ages.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
...	...	367,505	10,436	35,556	81,919	75,584	144,125	19,885
1889	11,696	7,861	2,073	1,315	362	369	2,100	1,642
1890*	12,336	8,370	2,128	1,210	369	398	2,379	1,886
1891	12,538	8,429	2,216	1,391	369	392	2,235	1,826
1892	12,546	7,403	2,114	1,087	311	334	1,899	1,658
1893	12,348	8,512	2,542	1,483	340	411	2,049	1,687
Total 5 years (261 weeks)	61,464	40,575	11,073	6,486	1,751	1,904	10,662	8,699
Rate per 1,000 on population at census, 1891.	33·4	22·1	21·3	36·5	4·3	5·0	14·8	89·5

* 53 week year.

Births and deaths registered in the City of Leeds in the periods of 52 or 53 weeks of the years 1899-1903, and rates on census populations. (*Reprinted from 1903 Report.*)

1	2	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.						
		3	4	5	6	7	8	9
Census population at these ages, census, 1901.	Regis-tered Births.	At all Ages.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.
...	...	428,968	11,236	38,638	87,942	86,335	180,441	24,376
1899	12,939	8,105	2,222	1,241	451	389	2,074	1,728
1900	13,091	8,619	2,397	1,349	380	407	2,157	1,929
1901	12,898	8,283	2,429	1,187	356	337	2,142	1,832
1902*	13,245	7,814	2,113	1,063	349	366	2,096	1,827
1903	12,996	7,334	1,992	944	321	295	2,019	1,763
Total 5 years (261 weeks)	65,169	40,155	11,153	5,784	1,857	1,794	10,488	9,079
Rate per 1,000 on population at census, 1901.	30.1	18.7	19.8	29.9	4.2	4.2	11.6	74.5

* 53 week year.

At the first year of age the death-rate calculated upon the census population under one was 213 per thousand in the old table, 198 in the later one, 188 last year. The matter of deaths at this age will be dealt with again in speaking of table 5.

At the age period one to five our death-rate had been 36.5 in the 1889-1893 period; it fell to 29.9 in the period ten years later; it was 31.7 last year. It is to this life period of course that deaths from measles chiefly fall, and the deaths from whooping cough are distributed between this and the earlier period.

It was at the school age, five to fifteen, that the smallest decrease in death-rate was recorded. In the earlier five years the rate was 4·3, in the later 4·2. When calculated upon figures carried to three places of decimals this gave an improvement of a little over 1 per cent., not of nearly $2\frac{1}{2}$ per cent. as the figures to one place only would suggest. Our death-rate last year was only 3·1 at this age, an apparent improvement of 27 per cent.

From fifteen to twenty-five, the age of adolescence, the death-rate fell in the ten years from 5·0 to 4·2; last year it was 3·8.

The most important of all these age periods is that from twenty-five to sixty. The death-rate had been 14·8, it fell to 11·6, or as already said 21 per cent. Last year it was only 10·5.

In persons over sixty the rate had been 89·5 and 74·5 in the two quinquennia compared, it was 78·2 last year.

In table 4 two other age periods are given—twenty-five to sixty-five, when the rate was 12·7, and over sixty-five, when the rate was 100·7.

Infantile mortality—By infantile mortality is meant the mortality of children under one year of age. In table 5 it will be found that this has been as usual calculated in three different ways. The first is the rate upon the population under one year of age estimated to the middle of the year 1904 on the supposition that the population at all ages has increased from 428,968 to 450,142. It has been further assumed that the proportion between the population under one and the whole population is the same as at the time of the census, and that as the number of children under one required to be multiplied by 38·178 to give the total population at the census, so the number of children under one at the middle of 1904 would be found by dividing the assumed population of 450,142 by 38·178. Such an estimation, however, takes no cognizance of the fact

TABLE 5.

Mortality in Children under one year of age, during the
52 weeks of 1904.

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	YEAR.
Calculated per 1,000 of the population under 1, estimated to the middle of 1904, on the supposition that the whole population of the city was that estimated by the Registrar General, and that the number of children under one bore the same proportion to the population as at the 1901 census ...	175	159	254	162	188
Deaths under 1 per 1,000 births registered in same period	160	147	238	158	176
Deaths per 1,000 registered births, the latter instead of those for the same quarterly period being the average of the same and four preceding quarters. The rate for the year is the mean of the four quarterly rates	159	145	233	152	172
Average rate by last method for five preceding years ...	150	146	240	164	175
Average rate by second method for years 1886-90 (from table 7a 1890 report)	158	147	223	171	175

that our birth-rate has been decreasing. The fraction 1 divided by 38·178 is not the same fraction that represented the ratio of the number of children under one to that of the whole population at the time of the 1891 census. The fraction they formed of the whole population at that time was 1 divided by 35·215, while in 1881 the denominator of the fraction was 31·766. If the rate of proportionate decrease in the number of children under one, in regard to the whole population, has continued since the last census at the average rate at which it was going on during the preceding ten years, the population in the middle of 1904 under one would be 11,490 instead of 11,791, or 300 less. Consequently the figures in the first line of table 5 must be received with a certain amount of diffidence.* Their general result is, however, that the death-rate in children under the age of one during the year is 188 for every 1,000 living at the middle of the year, and the rates varied from 159 in the second quarter, to 254 in the third.

Owing to the defects of the methods of estimating the real infantile population it is more usual to establish a ratio between the number of children under one who died and the number of births which took place in the same period. The births give a larger population than the real one, as the deaths which occur in the first six months are not deducted. Calculated however in this way the rate for the year was 176. This is not what we are unfortunately accustomed to consider for Leeds a very high one. It varied from 147 in the second to 238 in the third quarter. But here again in taking a short period like three months we introduce another defect into the calculation. As births may be registered up to five or six weeks after they happen, the question

* The figure 11,490 given above was obtained by taking the figures 35·2151 and 38·1780 as terms of a geometrical progression, the corresponding term for the middle of 1904 being 39·1778. Dividing the Registrar General's population by this the number obtained is 11·490. Taking the three terms 31·7664, 35·2151, and 38·1780, constructing a table of differences and estimating the corresponding number for the middle of 1904 (the 93rd term), the infantile population comes out at 11,540, while by taking the actual population enumerated at the censuses 1881, 1891, 1901, again constructing a table of differences, the ninety-third term for the middle of 1904, comes out at 11,518.

of holidays at the beginning or end of a period may considerably affect the number of births which come into our returns, transferring a hundred or so from one quarter to another. To obviate this defect the method adopted in the third line has been employed. Instead of taking for the several quarters the births which occurred in that quarter and calculating the mortality upon that number, the average number of births which occurred in the five quarters of which it formed the last has been taken. In this way the death-rate under one comes out at 159 in the first, 145 in the second, 233 in the third, and 152 in the fourth quarter. The average of these four quarters, 172, is used as the average for the year. It will be seen that the rate of infantile mortality calculated by this method for the year 1904 is slightly below the average of the five years which preceded it taken in the same manner.

For comparison the mortality in the several quarters during the five years 1886-1890 has been reprinted from the table given in my report to the Sanitary Committee for 1890. It will be noticed that the figures for the year we are dealing with do not differ very greatly from those obtained by the second method described, which was the method used in the earlier reports. While, therefore, our mortality at all ages as given in table I is less by 3.11 than that of the years 1885-1889, an improvement of more than $14\frac{1}{2}$ per cent., the mortality measured in the other way of children under one as compared with a similar period of five years (beginning, however, a year later) is practically stationary.

It is not well, of course, to attach too much importance to the infantile mortality for a single year, but it has been already pointed out that our mortality per thousand births is practically the same for the year as during the last five years, and those five years practically the same as the five years 1886-1890. We cannot, therefore, in this respect congratulate ourselves upon any absolute progress. To show that it is not well to calculate upon

Mortality of Children under One, per 1,000 born in the same period, for each quarter of the 15 years 1890-1904, and for each of those years along with in each case the amount per cent. above or below the average of the whole period.

	I.		II.		III.		IV.		YEAR.	
	Deaths per 1,000 Births.	% above+ below -	Deaths per 1,000 Births.	% above+ below -	Deaths per 1,000 Births.	% above+ below -	Deaths per 1,000 Births.	% above+ below -	Deaths per 1,000 Births.	% above+ below -
1890	152	- 14	143	- 19	217	+ 23	178	+ 1	173	- 2
1891	156	- 11	173	- 2	205	+ 17	175	- 1	177	+ 1
1892	159	- 10	139	- 21	209	+ 19	166	- 6	168	- 5
1893	175	- 1	167	- 5	310	+ 76	171	- 3	206	+ 17
1894	138	- 22	131	- 26	184	+ 5	173	- 2	156	- 11
1895	163	- 7	133	- 24	296	+ 68	176	{ + 0 - 0	191	+ 9
1896	155	- 12	164	- 7	207	+ 18	146	- 17	169	- 4
1897	141	- 20	118	- 33	319	+ 81	187	+ 6	190	+ 8
1898	145	- 18	140	- 21	286	+ 63	160	- 9	183	+ 4
1899	141	- 20	128	- 27	262	+ 49	156	- 11	172	- 2
1900	173	- 2	160	- 9	241	+ 37	157	- 11	183	+ 4
1901	143	- 19	127	- 28	320	+ 82	164	- 7	188	+ 7
1902	152	- 14	142	- 19	172	- 2	172	- 2	160	- 9
1903	131	- 26	116	- 34	177	+ 1	190	+ 8	153	- 13
1904	160	- 9	147	- 17	238	+ 35	158	- 10	176	{ + 0 - 0

single years it is only necessary to point out that our mortality in 1903 was 153, and that our rise in the mortality last year was only a rise to the rate of the preceding five. We have not gone back, but we have not gone forward.

Mean temperature in degrees Fahrenheit for each quarter and for each year from 1890 to 1904 inclusive.

	I.	II.	III.	IV.	YEAR.
1890	42.9	55.0	61.6	43.5	50.6
1891	40.2	55.0	61.3	43.8	50.1
1892	40.1	54.6	59.7	42.3	49.2
1893	42.3	59.1	63.9	46.3	52.9
1894	42.6	55.1	61.0	47.5	51.6
1895	36.8	57.9	64.0	44.9	50.4
1896	44.1	58.5	61.3	42.9	51.9
1897	41.7	56.0	63.4	47.3	52.1
1898	44.1	55.3	64.3	49.1	53.2
1899	42.6	56.5	64.5	45.9	52.4
1900	40.1	55.9	64.0	48.9	52.2
1901	40.1	58.0	66.0	45.3	52.4
1902	42.6	54.0	60.9	47.2	51.1
1903	45.5	55.8	61.4	45.6	52.1
1904	41.4	56.4	63.5	46.2	51.9
Means	41.8	56.2	62.7	45.8	51.6

Rainfall—inches.

	I.	II.	III.	IV.	YEAR.
1890	5.65	4.86	8.71	3.56*	22.62*
1891	2.36	4.88	7.08	10.32	24.64
1892	4.27	8.02	5.99	9.00	27.28
1893	4.32	2.96	8.21	6.34	21.83
1894	8.78	6.70	5.69	6.81	27.98
1895	6.27	4.86	10.00	8.79	29.92
1896	4.48	5.32	6.24*	8.72	24.76*
1897	7.67	5.68	5.72	6.04	25.11
1898	2.83	7.05	4.19	7.47	21.54
1899	5.67	6.11	6.03	5.59	23.40
1900	8.36	4.88	9.17	8.14	30.55
1901	5.03	3.84	3.25	8.93	21.05
1902	3.15	5.68	6.17	5.95*	21.01*
1903	6.62	5.93	7.86	8.83	29.24
1904	7.05	4.40	5.65	3.44	20.54
Means	5.50	5.41	6.66	7.20	24.76

* The fourth quarter of 1890, and third of 1896, and the fourth of 1902 contained 14 weeks. The total rainfall for the quarter has been corrected by deducting a fourteenth part; and a fifty-third part of the total has been deducted from the amount for the year for the same periods.

The improvement of 7 per cent. in the mortality of children under one between the five years surrounding the 1891 and the five years surrounding the 1901 census is one that we might congratulate ourselves upon could we have felt certain that the numbers enumerated at the census represented the actual population. An epidemic of measles and whooping cough during the first quarter of the year following upon a heavy diarrhoea death-rate in the third quarter of the preceding year might so diminish the actual infantile population at the period of the census as to vitiate any figures calculated upon it.

This subject is so important that I venture to lay before you a table showing the infant mortality in each of the four quarters of each of the years since I came to Leeds, and I append also a diagram which will show the variations which have taken place in the annual mortality during these years and also in that of each quarter, and on these charts certain meteorological conditions which have been calculated from the records kept at the Philosophical Hall for the same periods.

J. SPOTTISWOODE CAMERON.

March 8th, 1905.

NOTES TO INFANT MORTALITY CHART.

It will be noticed that the third quarter mortality of children under one was considerable in 1893, 1895, 1897, and 1901, and to a lesser extent in 1898 and 1899. On the other hand the third quarter mortality in 1894, 1902, and 1903 was considerably below the average for that quarter.

It is of course in the third quarter that the highest mortality amongst children usually occurs. It was so in every year but two of the fifteen shown on the chart. In 1902 the rate, 172, was the same in the third and fourth quarters. In 1903 the rate in the fourth quarter was a little in excess of that in the third.

In studying the chart it will be noticed that the line in the middle represents a death-rate of 176 infants under one for every thousand born during the period indicated on the chart. The hatched portions above and below that line represent the percentage by which the mortality of each quarter exceeded or fell short of 176 per 1,000.

In the same way the mean temperatures of the several quarters is shown by hatchings above and below a line marked on the left hand side of the chart 0 and on the right 51.59° . The hatched portions above and below that line show the percentage variations from this average. This average is the mean of the observations taken at the Philosophical Hall at 10 a.m. and 4 p.m. during the fifteen years without any corrections. While the average temperature of the whole period was 51.6° , the mean temperature of the several quarters varied considerably. It was 41.8° in the first, 56.2° in the second, 62.7° in the third, and 45.8° in the fourth quarter, and in the notes which follow it will be understood that in speaking of any particular quarter these figures are taken as the means for comparison.

The top portion of the chart shows the amount of rain which fell in each quarter measured in inches. The average rainfall in the first quarter was 5.50, in the second 5.41, in the third 6.66, and in the fourth 7.20 inches. The average for the whole year of 52 weeks was 24.76 inches. The average quarterly rate was therefore one-fourth of this, namely 6.19 inches, higher than the two earlier, lower than the two later quarters of the year. In speaking again of the rainfall in the second and third quarters the comparison will be with the averages of those quarters.

Taking first the years of high infantile mortality it will be seen that in the one first mentioned, 1893, the temperature during the second quarter was nearly 3 degrees above the average of that quarter, and the rainfall nearly $2\frac{1}{2}$ inches below

the quarter's average. In the third quarter the temperature was a degree above, and the rain an inch-and-a-half above the averages of that quarter. The conditions affecting the mortality in the third quarter had evidently been prepared to some extent in the second by the increased temperature and the diminished rainfall.

In 1895 the infant mortality in the second quarter had been 6 per cent. below the average of the quarter. The temperature of the quarter was nearly 2° above the second quarter's average, and the rainfall half-an-inch below. In the third quarter both the temperature and the rainfall were above the average for the quarter. In regard to the latter, however, it should be noted that in one week (the fourth) there were 4·2 inches of rain. Taking that week out of the quarter the rainfall was below the average of the twelve weeks,* so that the higher rainfall did not really indicate a large amount of wet during the quarter.

In 1897 the temperature was fractionally below the average and the rainfall a quarter of an inch above, in the second quarter. In the third quarter the temperature was nearly a degree above and the rainfall nearly an inch below the average. It should be noted, however, that the high temperature began in the last fortnight of June, when it averaged 66·5°, and with the exception of one week it was above that average until the middle of August. The month of July was especially dry—0·35 inches in the four weeks—and in the two earlier weeks of August the fall was only half-an-inch. It was in this month that the heavy mortality from diarrhœa occurred.

In 1901 the second quarter had a temperature nearly two degrees above the average and a rainfall of an inch and a half less than the average, whilst the third quarter had a temperature 3 degrees above the average and a rainfall nearly 3½ inches

*The average third quarter rainfall in 13 weeks is 6·66, and in 12, 6·15. The total rain in the quarter, less the 4·20 in the fourth week, was 5·8.

below the average. That year was a typical diarrhœa year, with an increased temperature and a diminished rainfall during the six summer months.

The years of lowest mortality in the third quarter were as already said 1894, 1902, and 1903.

In 1894 the temperature in the second quarter was a degree below and the rainfall an inch and a quarter above the average. In the third quarter the temperature was nearly 2° below the average of the quarter and the rainfall nearly an inch below. The rainfall, however, was distributed pretty evenly during July and August, none of the first ten weeks of the quarter being without some. The smaller amount of rain in the third quarter did not undo the benefit of the larger amount in the second, and the absence of any great heat in either quarter.

The year 1902 had a temperature in the second quarter 2° below and a rainfall of a quarter of an inch above the quarter's average. In the third quarter the temperature was nearly 2° below and the rainfall about half an inch below the quarter's average. Here also the rainfall, although below the average in the diarrhœa quarter, was fairly evenly distributed, no week in that quarter being entirely without rain, and the preceding quarter as already mentioned had been a moist one.

In the year 1903 the second quarter had a temperature slightly below the average and a rainfall half an inch above the average. In the third quarter the temperature was more than a degree below the average, and the rainfall was upwards of an inch above the average; all these conditions were unfavourable to diarrhœa.

Infant mortality, mean temperature, and rainfall in each quarter of the years 1890-1904.



In the 52 weeks ended 31st December, 1904, the following births and deaths were registered, and cases of infectious diseases reported.

Population estimated by the Registrar General after Census...	450,142
Acreage	21,572
Births registered ... 12,561	Birth-rate per thousand 28·0
Average birth-rate, ten years, 1894-1903 ‡	31·0
Deaths (all ages) ... 8,096	Death-rate per thousand 18·0
(R.G. 8089).*	
Average death-rate, ten years, 1894-1903* ‡	19·0
Deaths (under 1 year) ... 2,207	Ratio to 1,000 births 176

	Total deaths.	Death rate per thousand.		Cases notified. 1904.
		1904.	1894-1903.	
			‡	
1. Smallpox	2	0·00	0·01	64
2. Measles	344	0·77	0·47	39||
3. Scarlatina	59	0·13	0·18	1,295
4. { Diphtheria	40	0·09	0·29	348
{ Memb. croup	10	0·02	} 0·09† {	13
{ Other croups	10	0·02		8||
5. Whooping cough ...	208	0·46	0·37	...||
6. { Typhus	3	0·01	0·00	18
{ Typhoid	47	0·10	0·18	267
{ Ctd. fever ... ..	...	...	0·00	1
Puer. sept.	11	0·02	0·04	26
Erysipelas	9	0·02	0·04	324
7. Diarrhœa... ..	451	1·01	1·03	...
Cholera (English) ...	...	...	0·00	...
Phthisis	626	1·40	1·42	631§
Other tuberculous diseases	369	0·82	0·76	...
Seven commoner zymotics } (including mem. croup) }	1,164	2·59	2·58†	...
Bronchitis }	1,329	2·96	3·37	...
Pneumonia }				
Pleurisy }	81	0·18	0·21	...
Other lung diseases } (without influenza) }				
Malignant growths ...	379	0·84	0·78	...
Violence and accident ...	245	0·55	0·64	...

* The R.G. excludes deaths of non-municipal paupers. The rate is calculated on the larger number.

† Membranous croup was not separated from "croup not spasmodic" till 1895. The mortality for 1895-1903 was 0·05. The annual rate from diphtheria for ten years, and memb. croup for nine years, was therefore 0·34, and the seven diseases 2·58 instead of 2·53, when memb. croup is excluded.

‡ The average of the published returns were birth-rate 30·9, death-rate 18·9. The higher figures obtained from calculating the births and deaths on the arithmetical mean of populations for 1898 and 1899, obtained by method of interpolation explained in report for 1901, have been printed above. The death-rates for special groups are the uncorrected means of the published returns.

|| Means not notifiable. § Notification voluntary.

PART II.—SPECIAL DISEASES.

TUBERCULOSIS.

TABLE 6.

Mortality from tuberculosis, 1904.

1904.	Tuberculosis, general and undefined.	Phthisis.	Hydro- cephalus.	Tuberculous meningitis.	Tuberculous peritonitis.	Tabes mesenterica.	Scrofula.	TOTAL.
I. Quarter	31	190	4	27	8	20	—	280
II. do. ...	30	174	2	31	13	25	—	275
III. do. ...	41	116	2	23	16	24	—	222
IV. do. ...	35	146	...	7	6	24	—	218
Year (52 weeks) ..	137	626	8	88	43	93	—	995
Annual death- rate, 52 weeks of 1904 ...	0·31	1·40	0·02	0·20	0·10	0·21	—	2·22

Table 6 is the usual one containing the deaths from the several groups of this disease during the 52 weeks, and the annual rates from each group calculated on the population used by the Registrar General.

Table 6a gives the totals for the similar groups since 1890, and table 6b the rates per thousand of the population estimated by the interpolation method up to 1904, the populations on which these rates have been calculated having been given in table 6a.

TABLE 6 a.

Shewing deaths from each of certain groups of tuberculous diseases in the 52 or 53 week periods of the years 1890-1904, and the populations of those years estimated from the changing ratios of the 1881-91, and 1891-1901 intercensal periods.

YEAR.	Population by interpolation.	General or undefined.	Phthisis.	Hydrocephalus.	Tuberculous meningitis.	Tuberculous peritonitis.	Tabes mesenterica.	Scrofula.	TOTAL.
1890*	363,018	92	612	20	92	14	92	6	928
1891	369,034	84	657	18	72	25	102	9	967
1892	375,081	84	530	14	65	14	93	9	809
1893	381,157	99	648	17	67	32	86	12	961
1894	387,259	79	576	9	72	18	61	13	828
1895	393,387	114	611	16	77	15	90	2	925
1896*	399,535	66	613	15	74	22	73	10	873
1897	405,716	102	589	14	91	36	99	2	933
1898	411,895	96	576	17	73	26	98	3	889
1899	418,101	86	596	9	102	33	80	1	907
1900	424,322	101	605	12	94	48	87	1	948
1901	430,555	107	605	7	75	46	136	...	976
1902*	436,800	109	584	4	100	36	80	3	916
1903	443,052	100	562	8	106	37	82	1	896
1904	449,311	137	626	8	88	43	93	...	995

* 1890, 1896, and 1902 were 53 week years, the others 52.

During the year the deaths from tuberculosis were most numerous in the first quarter, when they amounted to 280. They were 5 less in the second, 53 less again in the third, and 4 less again in the fourth quarter, the total deaths for the fifty-two weeks being 995 against 896 in the similar period of 1903. Allowing for the increase of population the death-rate was

TABLE 6 b.

Shewing deaths from different forms of tuberculosis since 1890 per 1,000 of the population, estimated at the varying ratios prevailing during 1881-91, and 1891-1901 intercensal periods.

YEAR.	General or undefined.	Phthisis.	Hydrocephalus.	Tuberculous meningitis.	Tuberculous peritonitis.	Tabes mesenterica.	Scrofula.	TOTAL.
1890*	·25	1·66	·05	·25	·04	·25	·02	2·52
1891	·23	1·79	·05	·20	·07	·28	·02	2·63
1892	·22	1·42	·04	·17	·04	·25	·02	2·16
1893	·26	1·71	·04	·18	·08	·23	·03	2·53
1894	·20	1·49	·02	·19	·05	·16	·03	2·15
1895	·29	1·56	·04	·20	·04	·23	·01	2·36
1891 } 1895 }	·24	1·59	·04	·19	·05	·23	·02	2·37
1896*	·16	1·51	·04	·18	·05	·18	·02	2·15
1897	·25	1·46	·03	·23	·09	·24	·00	2·31
1898	·23	1·40	·04	·18	·06	·24	·01	2·17
1899	·21	1·43	·02	·24	·08	·19	·00	2·18
1900	·24	1·43	·03	·22	·11	·21	·00	2·24
1896 } 1900 }	·22	1·45	·03	·21	·08	·21	·01	2·21
1891 } 1900 }	·23	1·52	·04	·20	·07	·22	·02	2·29
1901	·25	1·41	·02	·17	·11	·32	...	2·27
1902*	·25	1·31	·01	·23	·08	·18	·01	2·06
1903	·23	1·27	·02	·24	·08	·19	·00	2·03
1904	·31	1·40	·02	·20	·10	·21	...	2·22

* 1890, 1896 and 1902 were 53 week years, the others 52. The death rates in each case are calculated on a year containing 52·17747 weeks. The rates for 1904 are calculated on a population of 449,311 in this table, but in the report generally on one of 450,142. The results to two decimals are the same.

2·22 in 1904, against 2·03 in 1903. The deaths were 137, against 100, from general and undefined tuberculosis; 626 against 562, from consumption. Those returned as due to hydrocephalus were 8 in each year, but those returned from tubercular meningitis were 88 in 1904 against 106 in 1903. From tuberculous peritonitis and tabes mesenterica the deaths were 43 and 93 respectively against 37 and 82 in the previous year; so that from all causes except tuberculosis of the encephalon the deaths were on the increase. From the two brain diseases the rate was 0·22 in 1904 against 0·26 in 1903.

The total tuberculosis death-rate of 2·22 was slightly higher than the average of the three preceding years 1901-1903, which was 2·12. It was virtually the same as that for the five years, 1896-1900, which had been 2·21, and lower than that for the preceding five years, 1891-1895, which had been 2·37.

LUNG DISEASES.

PHTHISIS.

From phthisis alone the death-rate was 1·40, a higher rate than that of either of the two preceding years, the rates for which were respectively in 1903 1·27, and in 1902 1·31. The rate, however, was lower than for the five years 1896-1900 by 0·05, and lower than for the five years 1891-1895 by 0·19. The consumption death-rate, although greater than that of either of the two immediately preceding years, was lower with one exception than for any other of the twelve years since 1889; that single exception was the year 1898, when the rate was the same.

Table 6c contains the deaths in each intercept from this disease arranged according as the age was under 25, between 25 and 50, or over 50. The increase last year was at each of the age periods (excluding in each case the deaths of outsiders). Under 25 years of age it was 171 against 125, a very considerable increase; between 25 and 50 it was 313 against 309, a slight increase; over 50 it was 134 against 119, also a considerable increase.

TABLE 6 c.

Table showing deaths from phthisis at all and at certain ages, and death rates at all ages in the intercepts of the wards and townships of Leeds in the year 1904.

				AGE.			TOTAL.	Deaths per 1,000.
				—25.	25—50.	50+.		
HOLBECK	Holbeck	...	...	13	16	4	33	1·10
	West Hunslet	...	...	2	...	1	3	0·81
HUNSLET	West Hunslet	...	...	13	11	3	27	0·99
	East Hunslet	...	...	7	21	10	38	1·05
	South	...	...	7	5	1	13	1·34
SOUTH-EAST LEEDS	South	...	} 4·33 {	4	6	6	16	3·48
	Central	...		...	4	5	9	7·58
	East	19	31	18	68	2·36
OSMONDTHORPE	East	...	} 1·17 {	...	...	...	...	...
CHAPELTOWN... (part of)	North-East...	...		3	7	...	10	1·22
	North	} Chap. - All. } Pottern'tn }		...	3	1	4	0·80
			6	5	3	14	0·69	
NORTH LEEDS	North	...	...	5	12	7	24	1·38
	North-East...	...	...	12	24	15	51	2·27
	Central	...	} 1·62 {	1	20	9	30	1·59
	Central in West	...		...	1	...	1	4·30
WORTLEY	New Wortley	...	...	10	12	6	28	1·51
	{ Armley ... { Wortley ... }	}	1·29 {	12	22	5	39	1·29
				4	5	3	12	1·31
	Farnley	...	...	3	2	2	7	1·52
BRAMLEY	Bramley	...	...	6	9	2	17	0·94
KIRKSTALL	Kirkstall	...	} 0·97 {	1	2	...	3	0·70
	Burley	...		12	14	2	28	1·01
	Headingley	...		3	7	3	13	0·98
CHAPELTOWN... (part of)	Headingley	...	} 0·70 {	1	...	...	1	0·77
	North-West	...		...	...	...	...	...
	Brunswick	...		...	...	2	2	0·69
WEST	Brunswick	...	...	5	23	8	36	1·80
	North-West	...	...	13	24	8	45	1·35
	Mill Hill	...	...	3	5	...	8	1·10
	West	...	...	6	22	10	38	1·61
CITY	...	...	...	171	313	134	618	1·38
	Outsiders	...	...	...	7	1	8	...

TABLE 6 d.

Table showing deaths from phthisis at all and at certain ages, and death rates at all ages in the intercepts of the wards and townships of Leeds in the five years 1900-1904.

					AGE.			TOTAL.	Deaths per 1,000.*
					-25.	25-50.	50+.		
HOLBECK	Holbeck	...	...	...	60	89	33	182	1·27
	West Hunslet	...	...	...	8	4	4	16	0·88
HUNSLET	West Hunslet	...	...	...	39	62	15	116	0·88
	East Hunslet	...	...	...	46	103	27	176	1·02
	South	...	...	...	24	23	7	54	1·09
SOUTH-EAST LEEDS	South	...	} 3·21 {	{	10	34	20	64	2·64
	Central	...			4	15	16	35	5·35
	East	...			72	134	60	266	1·88
OSMONDTHORPE	East	...	} 1·31 {	{	...	...	...	...	...
CHAPELTOWN... (part of)	North-east	...			13	30	5	48	1·38
	North { Chap.-All. Pottern'tn }	} 0·83 {			3	6	4	13	0·54
			21	46	16	83	0·91		
NORTH LEEDS	North	...	...	...	43	80	27	150	1·74
	North-east	...	...	...	51	135	69	255	2·24
	Central	...	} 1·83 {	{	17	104	50	171	1·78
	Central in West	...			...	6	1	7	5·43
WORTLEY	New Wortley	...	...	...	52	64	14	130	1·39
	{ Armley	...	} 1·19 {	{	62	88	23	173	1·21
	{ Wortley	...			16	26	8	50	1·12
	Farnley	...			9	8	4	21	0·94
BRAMLEY	Bramley	...	...	...	32	44	10	86	0·98
KIRKSTALL	Kirkstall	...	} 0·93 {	{	2	13	2	17	0·81
	Burley	...			51	71	18	140	1·08
	Headingley	...			9	29	6	44	0·69
CHAPELTOWN... (part of)	Headingley	...	} 0·64 {	{	2	...	1	3	0·48
	North-west	...			...	...	...	...	...
	Brunswick	...			1	6	3	10	0·73
WEST	Brunswick	...	...	...	33	91	31	155	1·53
	North-west	...	...	...	47	106	35	188	1·15
	Mill Hill	...	...	...	10	43	12	65	1·72
	West	...	...	...	45	126	57	228	1·91
CITY	...	...	...	...	782	1,586	578	2946	1·35
	Outsiders	...	...	...	4	22	10	36	...

* Calculated on the populations to the middle of 1902, estimated by the Registrar General's new method.

TABLE 6 e.
PHTHISIS (Revised).

Registration districts.	Ward intercepts.	1890-94.		1895-99.		Increase or diminution of death-rate per cent.
		Deaths.	Death-rate per 1,000 per annum.	Deaths.	Death-rate per 1,000 per annum.	
EASTERN DIVISION.						
HOLBECK ...	Holbeck	156	1'41	180	1'41	+ 1
	West Hunslet	20	1'17	15	0'85	- 28
HUNSLET ...	West Hunslet	142	1'34	133	1'12	- 17
	East Hunslet	147	1'11	181	1'20	+ 8
	South	66	1'21	65	1'24	+ 3
SOUTH-EAST LEEDS	South	77	2'30	64	2'72	+ 19
	Central	14		31		
	East	264	2'06	271	2'00	- 3
OSMONDTHORPE	East	2	'58	2	0'64	+ 11
CHAPELTOWN ... (part of)	North-east ... ..	...		6		
	North { Chapel-Allerton ...	23	1'27	13	0'60	- 53
		{ Potternewton ...	40	0'98	65	1'02	+ 3
NORTH LEEDS	North	159	1'97	122	1'46	- 26
	North-east	296	2'48	278	2'38	- 4
	Central	237	2'29	222	2'24	- 2
	Central in West	3		5		
WESTERN DIVISION.						
WORTLEY ...	New Wortley	146	1'51	123	1'29	- 15
	{ Armley (1'68—1'20)...	169	1'55	147	1'09	- 30
	{ Wortley (1'20—0'77)...	46		32		
	Bramley (Farnley) ...	15	0'82	23	1'13	+ 39
BRAMLEY ..	Bramley	100	1'31	112	1'35	+ 3
KIRKSTALL ...	Kirkstall (1'08—1'01)...	20	1'10	20	1'02	7
	Burley (1'13—1'23)...	97		133		
	Headingley (1'04—'65)...	56		39		
CHAPELTOWN ... part of)	Headingley (Meanwood)...	8	0'81	8	0'74	- 8
	North-west ... ..	...		...
	Brunswick	4		5		
WEST LEEDS ...	Brunswick	174	1'67	160	1'55	- 7
	North-west	187	1'29	216	1'39	+ 8
	Mill Hill	79	1'75	57	1'38	- 21
	West	231	1'87	211	1'73	- 7

In table 6d will be found the rates at these groups of ages for the five years 1900-1904, and the death-rates calculated upon the population re-estimated to the middle of 1902 by the method now adopted by the Registrar General.

Deaths from lung diseases, grouped according to nature of disease, and under age groups used for phthisis in certain tables.

1904.	—25.	25—50.	50 +	TOTALS.
Phthisis	171	320	135	626
Bronchitis	269	53	333	655
Broncho-pneumonia	305	9	27	341
Pneumonia and pleuro-pneumonia	172	63	87	322
Pleurisy	1	5	5	11
Other lung diseases	34	9	38	81
Totals	952	459	625	2,036

OTHER LUNG DISEASES.

While the deaths from consumption during 1904 compare somewhat unfavourably with those in the two years immediately preceding, the deaths from lung diseases, excluding consumption (1,410), although slightly more numerous last year than in 1903, when they were 1,316, were less numerous than in 1902, when they were 1,513. These deaths have also been arranged as during the last two years according as they occurred in persons under the age of 25, between 25 and 50, or in those over 50 years of age. The deaths from these causes will also be found in table 17 arranged in the same age groups as are used for all deaths in table A, part 2.

SEVEN COMMON ZYMOTIC DISEASES.**SMALL-POX.**

A brief resumé of the behaviour of small-pox during the early part of 1904 was given in the report for 1903, page 110 from which it will be seen that six cases were reported in the first quarter of 1904, and 22 in the second. All of these were treated in hospital, and they are all accounted for in table 8 and the notes to that table in the report cited (pp. 65 and 108-109). In the third quarter the cases fell to 12. These will be found detailed in table 8 of the present year, along with a reprint of p. 65 of the earlier report, dealing with the cases for the two preceding quarters. In the fourth quarter the numbers rose to 24. Details of these, and of the 12 in the third quarter, will be found in table 8 of the present report.

It has been considered convenient also to tabulate the cases which occurred up to the end of the second quarter of 1905, when the disease again seemed to come to a standstill, no cases having been reported after the 10th of May, 1905. The prevalence in the fourth quarter of 1904, however, had continued into the first quarter of 1905, when a somewhat serious outbreak occurred. Some remarks about the incidence of the disease in these quarters are required.

FOURTH QUARTER, 1904.

A somewhat serious development of small-pox occurred in the fourth quarter, and we are inclined to ascribe an outbreak in another part of the town to an undiscovered case belonging to this group. The circumstances were as follows:—A woman (6811:9) who had been visiting her nephew at the Infirmary, and mixing with persons from neighbouring towns on a similar errand, had shivering and pains in the limbs on October 6th, and an eruption of some sort on the 8th or 9th. Her sister (6811:8), who had been recently confined, had similar symptoms on October 20th, developing an eruption on the 22nd or 23rd.

Both these women are entered in the register as having been vaccinated in infancy, but unsuccessfully. The two patients and the three-weeks-old baby were sent into hospital at once, the latter being vaccinated the same day (24th). The rest of the family, five in number, went to our cottages on the 25th, and were vaccinated the same day. There were three other persons who had lately been in the house, one from No. 18 in the same street, and the midwife from a neighbouring street. They were kept under observation. A lodger had left on the morning of the 24th for Nottingham, where he was to work as an electrical engineer at the new cathedral. When, next day (25th), we learnt this, we telephoned to Dr. Boobbyer, medical officer of health, and had a wire in the course of the same day saying that this man had been found and removed to hospital with a developing rash. Next day Dr. Boobbyer wrote me that he found him with small-pox papules just appearing through a measley prodromal rash, and that he had him away from his work within an hour of our message.

The baby (6811:0), although the vaccination carried out on the 24th was regarded as "successful," developed the eruption of small-pox on November 3rd, the tenth day from the date of inoculation, and the twelfth from the date of the mother's eruption. The baby seems to have been born on the 5th of October, the mother's eruption to have appeared on the 22nd. Had the aunt's illness been recognised, and had the baby been vaccinated at birth, it might possibly have escaped the disease altogether. The fact that it recovered was possibly due to the ameliorating effects of the subsequent vaccination. The father, aged 28, plumber by trade, was re-vaccinated on October 25th, not successfully, and his small-pox eruption appeared on the 29th. In this case also, had the nature of his sister-in-law's illness been recognised earlier, he would probably have escaped. He seems, from the date of his eruption, to have received the infection from his sister-in-law, whose eruption developed on October the 8th, not from his wife.

These were the only cases in the same house that developed the disease, but the daughter (6826:7) of the people at No. 18, a house we were, as already said, keeping under observation, developed the eruption of small-pox on the 8th of November. This child had been vaccinated in infancy, and had two rather small marks ($\frac{1}{3}$ sq. in.). She was re-vaccinated on October 30th in three places by Dr. Green—whether successfully or not we do not know, though as the case is not entered as re-vaccinated in the hospital book it is probable that there were no marks. The date of her eruption (November 8th) points to her having contracted the disease the day after we heard of the cases at No. 27. Her mother was sister to the two patients at that house. We are told that she was not in the house on the 24th of October, the day we heard of and removed the cases, but that she was present on the removal of the other members of the family on the following day to the cottages. Though at the time we knew of her mother's having been in the house, we did not know that the girl had been in contact with any of the patients there.

There was some amount of concealment at this house. An inspector was visiting daily from the 26th of October, and though he was there at 9.10 a.m. on the 8th and 10 o'clock on the 9th, asking if anyone was ill in the house, it was not until 12 o'clock the next day (10th) that he was told that this child had spots on her face and chest. The members of this family were, father and mother (vaccinated in infancy), a brother, age 9 (who was re-vaccinated on November 5th), a lodger, age 28 (said to have been re-vaccinated three years ago), and a servant, aged 24 (re-vaccinated on October 30th). There was also a girl called Eva W., who had been in the house during the time that we were watching the family, but who left October 26th, and was watched at her new address. We afterwards found that there were two other girls living in this house, whose names were not given to us, and we also heard of a coloured man who had been living in the house a few days

before the five inmates were removed to the cottages. It was unfortunate that we did not hear that these two other girls were living in this house. They moved on November 5th to a neighbouring street, and on the 15th of November we heard that one of them (6830:9) had developed small-pox. The eruption appears to have come out on the 13th or 14th, pointing to infection about the 30th of October. The second one (6842:8) developed the eruption on the 27th in our quarantine cottages. Neither of them had ever been vaccinated.

Although our inspector had been visiting the house at No. 18 from the 26th of October, we did not seem to have been able to get the clothes of the family for disinfection until the 28th, and then only those of the housewife, the known contact. We afterwards found that these two girls, whose names had never been given to us, had left the house as already said, on November 5th. It is therefore probable that the infection left in the house after the 28th was the cause of the illness of the first of these two girls whose eruption developed on the 13th or 14th of November, and that her friend took the infection from her.

We had thus cases in two houses infected after the 24th from the family at No. 27. It is, of course, possible that the infection may have been in the clothes of the family at No. 18 before the 24th, although the dates of the development of the two cases directly infected point to the 25th and the 30th as the infective dates. If this be so, it shows the importance of our usual practice of getting the clothes of contacts disinfected without loss of time, and points to the desirability of securing the disinfection of the clothing of the whole family of a contact. This matter was specially referred to in connection with lodging houses in the Annual Report for 1902 (p. 64-65).

It will be inferred from what has been said about No. 18 that it was a house much frequented. The two girls who left it for a neighbouring street were in the habit of receiving visitors. When the first of them herself developed small-pox in

their new lodgings, we moved everyone known to live in the newly affected house to the cottages, and we took precautions, so far as we were able, to have a watch kept upon visitors. This involved, in some cases, writing to neighbouring authorities. We thought at the time that we had pretty well accounted for everybody known to frequent the house and were inclined to congratulate ourselves upon the result. It was not until towards the end of January (21st) that we discovered that we had overlooked one of the frequenters of this house. Of this later.

In the meantime, towards the end of the year, small-pox had apparently nearly died out in Leeds. In the middle of November a case (6832:7) occurred quite away, as far as we could learn, from any of the known cases. The patient was a child of 13 attending the Central Higher Grade School, her mother (6840:6) developing the disease about ten days later (25th) when in quarantine, whether from infection acquired before her daughter's attack or whether the incubation period had been accelerated by her successful vaccination on November 17th, remains uncertain.

In the middle of December cases occurred in Stanningley; the man (6858:3), whose eruption appeared on December 13th, being an out-patient at the Infirmary. Patient 6869:2 seems to have received her infection from one of these two patients. In December, also, the caretaker (6859:8) at a school in the East Ward developed small-pox, and it was ascertained that his wife had had an illness, from its description resembling small-pox, about a fortnight before. It is possible that the wife contracted the disease from contact at some shop with relatives of case 6832:7 already mentioned.

In the third week of December a case occurred in the North Ward in a man (6862:4) who had been exposed to the infection at a house in Ardsley and who developed the eruption just over a fortnight from the date of such exposure. We had not heard of his visit to Ardsley till the 10th and his clothes were not disinfected till that date.

At Christmas, in one of the lodging houses, an unvaccinated man (6864:4) who had travelled from Worksop, where he had been exposed to the infection of small-pox, was removed to hospital.

FIRST QUARTER, 1905.

Until the first week in January, 1905, there seemed to be little alarming about the cases of small-pox. So far as we knew they were all in hospital and all known contacts were being carefully watched. On the 5th of January, however, the case of a woman of 22 (6873:3) was reported in Stone Street (North-East Ward). Her eruption had appeared on January 3rd, and for some time we were quite at sea as to the origin of the case, the first recognised of a small outbreak. It will be seen from the table that during January we had no fewer than 22 cases in this ward. These included, of course, secondary cases breaking out in quarantine after the removal of first cases. With one or two exceptions, these 22 patients all lived in Lemon Street, Orange Street, or within a few yards of these streets, and apparently were due to one original infection. About this time a case broke out at the bottom of Charles Street (6883:6) in a house to which a lodger had gone whom we had lost sight of at the lodging house already mentioned. The man himself developed the disease in Charles Street, where he had taken cover, although he was removed from the workhouse, and the woman (6896:2) of the house followed suit a fortnight later. These two cases did not seem to have anything to do with the Lemon Street outbreak. A thorough examination of the whole of that part of the North-East Ward was made as soon as the first case was reported in Stone Street and was continued, house-to-house, until the outbreak was over. For some little time we were at a loss to account for the origin of the first case. Under these circumstances I asked Mr. Carter, the inspector of houses let-in-lodgings, to take the matter up, and he almost immediately laid his finger on what there is reason to think was the real origin

of the outbreak. It seems that we had omitted to account for one of the frequenters of the house in the Brunswick Ward, where the two young women who developed the disease had gone to lodge. This person generally lived in the North-East Ward, but was in the habit of taking companions to the house in the Brunswick Ward. At the time that that house was emptied of its occupants and closed, this woman disappeared from Leeds and was not seen in her usual haunts until the first week of December, when she came to lodge in Lemon Street. She told the people with whom she stayed that she had been away in Sheffield and Bradford, and that she had been ill, and that she had had some sort of an eruption. By the time that this had been ascertained she had already disappeared again, but it was pretty clear that she had been the focus from which the infection had spread. Three members of the same household (6877:1, 6878:5, 6891:0) developed the disease between January 5th and January 23rd. A girl from Stone Street, was in the habit of fetching beer for these people. The girl did not develop small-pox. Her married sister (at home) developed the eruption of small-pox on January 3rd (the first case reported, 6873:3). The grocer's shop most frequented by these people became the seat of a limited outbreak, and it seemed tolerably clear that the great bulk of the cases in the North-East Ward were due to this infection. Fortunately, although it had got a pretty good start before we heard of it, we were able to deal with it pretty effectually. The disease was carried from Stone Street, Lemon Street, to Camp Field, and it was probably infection from this latter centre that caused some of the cases in Hunslet and Holbeck during February.

We seemed, therefore, to have this outbreak well in hand when an altogether different set of cases occurred in another part of the town. A medical practitioner was sent for to attend a man (7001:9) with pain in the back. He communicated to Dr. Porter his opinion that the case might be one of small-pox. Dr. Porter was kind enough to see the man, who had no eruption

resembling that of small-pox, but he had a slight eruption on the small of the back where he had been rubbing in chillie paste. According to the man's own account this backache had existed for some weeks and he alleged that he had not been in any way in contact with small-pox. Dr. Porter wrote to the medical practitioner stating that he did not think the eruption was that of small-pox, although it might possibly be a prodromal rash. He asked him to keep his eye on the case. We heard nothing about this case for several weeks when we learnt that he had changed his doctor, and told his new doctor that Dr. Porter had stated that his illness was not small-pox. A fairly typical eruption of small-pox appeared on his face, forehead, hands, and chest the day after Dr. Porter had seen him. His child (7001:0) developed a tolerably typical eruption of small-pox a fortnight later. We learned that the man himself a fortnight before had been over in Halifax with some cousins who developed the eruption of small-pox about the same time as his own. Two neighbours (6899:1 and 6900:9), one on each side, developed small-pox. The man's sister (7011:3) and afterwards his mother (7007:9) from the Brunswick ward who had visited, the one himself, the other his child, at the appropriate intervals, and an elder at the church (6897:7) where he attended, and where his wife sang in the choir, had small-pox about the same time. The man (6986:6) who delivered newspapers at the house also developed the disease and his child (7008:1) and mother (7012:1) contracted it from him. Altogether some nine cases were directly, or indirectly, traceable to this unrecognised case infected from Halifax. The history of the infection in Halifax, originating probably from Cleckheaton, will doubtless be dealt with by my friend Dr. Neech in his own report. An interesting point about the case of the man and his child is this:—his new doctor was put off his guard by the man's statement about what Dr. Porter had said. When the child took ill he was still biassed by an opinion which he held, and which is, curiously enough, still held by some medical men, that

unsuccessful vaccination is a proof of insusceptibility to small-pox. This gentleman himself had attempted to vaccinate the baby on two occasions, and his locum tenens upon one other. The failure was looked upon as a proof of insusceptibility, and he gratified the parents of the child by telling them that whatever happened to the child it could never take small-pox. As he seems genuinely to have believed this, it accounts somewhat for the fact that he did not recognise the somewhat typical eruption when it occurred. I say "somewhat typical," for I saw the child before the evidences of the eruption had disappeared, and they were in the characteristic site of variola, not of chicken-pox. The child was only about seven months old, and recovered. The illness was not a very severe one. Whether the attempted vaccination had introduced anti-toxins without producing vaccinia, and thus modified the disease, is an interesting question.

During February a localised outbreak, but with ramifications beyond Leeds, occurred in a small hotel. The disease had been allowed to go on for some weeks before we knew anything about it, but fortunately it did not spread very far. Particulars will be found under the notes to case 6899:5.

A few cases occurred in March amongst the workpeople of the National Telephone Co., evidently connected to a common centre, but by the beginning of April we were practically clear of small-pox, and during the second quarter of 1905 only six cases occurred, none of them later than the second week in May.

GENERAL MATTERS.

Seasonable prevalence.—It is an interesting point that the fall in the number of cases a little preceded the usual fall in the mortality from small-pox figured in the usual charts. The probable explanation is, that the recrudescence of small-pox in the early spring of 1904 was due to what might be called an accidental outbreak, that the natural curve had been a falling one, but that the prevalence of the disease in Dewsbury had prevented the disappearance of the disease at the end of 1903.

Methods taken.—The methods adopted were those already described in previous reports. Practically every case was taken to hospital as soon as heard of. The house was visited, and the names of members of the family and all visitors taken. The families were, with few exceptions, removed to our shelter cottages at Manston. Persons whose contact had been less close we persuaded to take a bath and have their clothes disinfected. Usually this was done at our new disinfecting station at Kidacre Street. Every person known to have been in contact with the patient or with the relatives of the patient after the commencement of the disease was kept under observation, an inspector calling at the house of these contacts daily and entering the time and result of his visit. This visiting of contacts was carried out also in connection with all workplaces at which the patient or members of his family were employed. In a few cases the workmates were persuaded to submit to complete isolation, in many cases the employers insisted upon this. In other cases we considered it sufficient to call daily at the works and ascertained that the foreman or forewoman was satisfied that the contact was in perfect health. The house in which the case occurred was disinfected in a somewhat thorough manner, every textile article in the bedroom and every textile article worn by the patient was removed and disinfected by steam. The clothes of the other inmates of the house were disinfected at the station. The bedroom and the sitting-room used by the patient were generally disinfected by washing with corrosive sublimate solution and then stripping the walls. In a few cases, where varnished paper existed, corrosive sublimate solution was used, but the paper was not removed. In many cases fumigation with sulphur was also used, but in some the walls were fumigated with formaldehyde gas while they were yet wet with the solution of formalin. The house was, of course, whitewashed and cleaned down, the floors being cleansed with carbolic soap. The conveniences used by the family were also limewashed and washed down with corrosive sublimate solution. The drains were all

flushed and the ashpits emptied. Where members of the family were isolated in our temporary shelters, or at home, we generally got the public vaccinator to revaccinate such as consented. Where they were removed to our isolation cottages at Manston we generally had no difficulty in persuading them to be revaccinated. Sometimes this occurred in those people who were transferred from the temporary shelters in the town to the cottages at Manston during the second week that they were under observation. So far as possible we persuaded contacts also to be revaccinated, putting as much pressure as we could upon firms, amongst whose employees cases had occurred, to get the rest of their workpeople vaccinated. We were careful not to allow any case to develop small-pox in the temporary shelters in the town. With four exceptions all the cases starred in the table as developing in quarantine are cases in which the disease manifested itself in the Manston Cottages quite away from the town. Patients 6877:2 and 6879:9 were occupants of a common lodging house, and were removed to Somerset Street at night, and transferred thence to hospital next morning, just as the eruption was appearing. Cases 7104:6 and 7105:8, mother and son, had been removed to Somerset Street on March 26th, 1905, and developed the eruption on the 5th and 6th of April respectively.

This occurred, it will be noticed, in 1905, not in the year specially reported upon. In 1904 all the families isolated outside their own houses were sent to the Manston cottages. In 1905, owing to a sudden rush of cases, it was not possible to do so. Eighteen families were sent to Somerset Street, and eight of them afterwards transferred to Manston, four to the house in High Street, two of them going later to Manston. The remaining 12 families were sent home at the expiration of the second week from contact. Only the two cases just mentioned occurred amongst these 22 families. All the other infections in quarantine occurred at the cottages at Manston.

TABLE 8 a.

Showing cases of Small-pox and deaths amongst vaccinated and unvaccinated persons† during the 183 weeks ended 1st July, 1905.

	All Ages.	0-1	1-2	2-3	3-4	4-5	1-5	5- 10	10- 15	15- 20	20- 25	15- 25	25- 30	30- 35	35- 40	40- 45	45- 50	50- 55	55- 60	60- 65	25- 65	65- 70	70- 75	75- 80	80- 85	85- 90	90- 95	-100	65+	
Cases -	690	8	3	4	3	9	19	28	40	68	55	83	138	79	103	79	65	54	27	22	18	447	4	5	1	10
* Deaths	35	3	1	...	1	1	3	...	...	...	6	...	6	1	5	3	3	4	4	2	22	...	1	...	...	...	...	...	1
Cases -	555	...	...	...	...	...	...	8	23	31	48	68	116	74	90	66	52	23	18	14	399	4	4	1	...	...	...	...	9
Deaths	17	...	...	...	...	...	...	...	...	...	3	3	3	1	2	2	3	2	2	1	13	...	1	...	...	...	...	...	1
Cases -	112	8	3	4	3	9	19	17	16	33	7	12	19	4	9	10	1	3	3	3	33	...	...	...	...	...	...	...	...
Deaths	14	3	1	...	1	1	3	...	...	...	...	3	3	...	3	...	...	1	1	...	5	...	...	...	...	...	...	...	...
Cases -	23	...	...	...	...	...	...	3	1	4	...	3	3	1	4	3	2	1	1	1	15	...	1	...	...	...	...	...	1
Deaths	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...

* Including death Z. 6052:3 certified as Meningitis (v. pp. 44 and 68, Annual Report, 1903).

† To save a line in the table two cases are included amongst the vaccinated who had previously had small-pox, but neither of whom had been successfully vaccinated. These cases were 6276:4, æt. 70, and 6282:9, æt. 46. Both are mentioned in the text and in table 8, report 1903.

Fifteen patients, entered as unvaccinated in this table in the 1903 report, have been transferred to the unknown or doubtful. They had no marks.

Table 8.—Vaccination and Infectivity.

Date of eruption.	Date heard of	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area. sq. ins.	Date.			
1904. Jan. 23	1904. Jan. 26	6520:0	E.H.	23	m.	4 f.	$\frac{3}{8}$	infancy	Note Stalybridge From work-mate (unrecognised case in house of 6562:0). Note Pianist at public house, v. Note to 6559:5 From 6562:0 in same house, v. 6559:5 See note to 6559:5
Feb. 24	Feb. 25	6539:9	N.	33	m.	...	...	never	...	...
March 21	Mar. 24	6559:5	E.H.	23	m.	2	$\frac{3}{8}$	infancy	...	...
23	25	6559:8	N.E.	20	m.	...	...	never	...	...
4	28	6562:5	E.H.	4	m.	...	...	never	...	...
10	29	6562:0	E.H.	36	m.	2	$\frac{1}{3}$	infancy	...	...
April 3	April 4	6567:8	E.	32	m.	3	$\frac{1}{2}$	infancy	From wife (unrecognised case). Note From wife of 6567:8, <i>q.v.</i> From wife of 6567:8, <i>q.v.</i> Wife of a carter From wife of 6567:8, <i>q.v.</i> From wife of 6567:8, <i>q.v.</i> From sweetheart's brother, 6566:7, <i>q.v.</i> From 6571:6 and 6574:7. See note to 6567:8 From work-mate, 6593:2 From sweetheart, 6593:2 Fried fish shop Batley or Dewsbury From Bradford case, who lodged in same house <i>en route</i> from York From sister, 6612:0 From unrecognised case at Dewsbury
1	5	6566:7	W.H.	9	m.	3 times not succ.	...	infancy	...	...
9	9	6570:9	N.	19	f.	2	$\frac{1}{8}$	infancy	...	...
9	11	6571:6	N.	22	f.	2	$\frac{1}{4}$	infancy	...	...
8	12	6571:9	E.H.	49	f.	1	$\frac{1}{16}$	infancy	...	...
10	12	6572:7	W.	28	f.	4	$\frac{4}{8}$	infancy	...	...
14	14	6574:7	N.	26	f.	1	$\frac{1}{8}$	infancy	...	...
19	19	6577:4	E.H.	21	m.	2	$\frac{1}{2}$	infancy	...	...
22	22	6579:3	N.	30	f.	2	$\frac{2}{8}$	infancy	...	April 17, succ. (E. 22nd)	
24	24	6580:4	N.	49	f.	2	$\frac{2}{8}$	infancy	...	April 14, succ. (E. 24th)	
24	24	6580:5	N.	24	f.	4	$\frac{3}{8}$	infancy	...	April 14, succ. (E. 24th)	
25	25	6581:4	N.	74	f.	not succ.	$1\frac{1}{4}$	infancy	...	April 14, succ. (E. 25th)	
28	28	6583:7	N.	62	f.	1	...	infancy	...	...
25-26	28	6583:8	W.H.	23	m.	4	$\frac{1}{4}$	infancy	...	...
May 9-10	May 11	6592:4	W.H.	37	f.	2	$\frac{1}{4}$	infancy	...	...
April 23	12	6593:2	W.H.	30	f.	3	$\frac{1}{2}$	infancy	...	...
May 13	13	6594:1	Hol.	43	m.	3	$\frac{2}{4}$	infancy	...	...
12	16	6595:7	W.H.	44	m.	1	1	infancy	...	...
12	16	6595:8	C.	28	m.	1	$\frac{1}{2}$	infancy	...	...
12	12	6611:6	W.	18	m.	...	$\frac{2}{8}$	never	...	June 3, succ. (E. 12th)	
12-13	14	6612:2	W.H.	30	m.	1	...	infancy	
May 23	14	6612:0	W.H.	35	f.	2	$\frac{1}{8}$	infancy	...	...

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.		RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area. sq. ins.			
1904. July 18	1904. July 19	6637:2	N.E.	36	m.	4	$\frac{3}{8}$	infancy	...	Labourer, living in common lodging-house
17	19	6637:3	E.	43	m.	4	$\frac{3}{8}$	infancy	...	From tramp, July 4. Note
19-20	20	6637:8	N.	43	m.	2 poor	$\frac{1}{8}$	infancy	...	Hawker, in Bradford, July 2 to 7
14-15	21	6638:6	W.H.	24	f.	3	$\frac{3}{4}$	infancy	...	In Barnsley, June 27 to July 7
18-19	21	6638:9	N.E.	35	f.	3	$\frac{1}{4}$	infancy	...	Visitor from infected town, July 2 to 4
22	22	6640:1	M.H.	10	f.	...	...	never	...	Came from Birstall to Infirmary, July 11
31	31	6645:9	W.H.*	33	m.	3 poor	$\frac{1}{2}$	infancy	...	From wife, 6638:6
Aug. 7	Aug. 7	6650:7	M.H.	15	f.	3	$\frac{2}{3}$	infancy	...	Infirmary, from 6640:1
8	10	6651:9	N.E.	39	m.	3	$\frac{9}{10}$	infancy	...	From wife, 6638:9. Prolonged incubat'n
24	25	6661:1	Hdy.	22	f.	not succ.	...	infancy	...	Family took lodgers
Sep. 7	Sep. 8	6671:5	E.H.	12	f.	...	...	infancy	...	At Ravensthorpe, August 6 to 15.
25	27	6686:6	W.	3	m.	...	...	never	...	Clothes not disinfected
										Out-patient at Infirmary. See note
Oct. 2-3	Oct. 4	6691:9	Bnk.	24	m.	3	$\frac{1}{4}$	infancy	...	Dispenser, Infirmary
6	6	6694:1	W.*	39	m.	...	...	never	...	From son, 6686:6, q.v.
6	6	6694:2	W.*	$1\frac{1}{2}$	f.	...	...	never	...	From brother, 6686:6, q.v.
8	8	6696:4	W.*	15	m.	...	...	never	...	From brother, 6686:6, q.v.
9	9	6696:6	M.H.	23	f.	...	...	never	...	From nephew, 6686:6, q.v.
9-10	11	6698:5	E.	32	m.	...	...	never	...	Working at Cudworth. Staying at com-
										mon lodging-house in Barnsley.
9-10	11	6698:6	W.H	13	f.	...	...	never	...	Rag sorter, Dewsbury. There from Aug.
										27 to Oct. 8
(f.) 21	22	6810:3	E.*	$\frac{2}{3}$	f.	...	...	never	...	From father, 6698:5, q.v.
22-23	24	6811:8	Bnk.	30	f.	not succ.	...	infancy	...	From 6811:9, q.v.
8-9	24	6811:9	Bnk.	37	f.	not succ.	...	infancy	...	See text, p. 36
3	+	6811:10	Bnk.	$\frac{3}{5}$	f.	...	$\frac{1}{2}$	never	...	From 6811:9, q.v.
Nov. 29	29	6816:4	Bnk.*	28	m.	3	...	infancy	...	From 6811:9, q.v.
Oct. 28-29	30	6816:6	E.H.	4	f.	...	...	never	...	From 6811:9, q.v.
Nov. 8	Nov. 10	6826:7	Bnk.	13	f.	2	$\frac{1}{3}$	infancy	...	Ossett. Note
13-14	15	6830:9	Bnk.	23	f.	...	...	never	...	From 6811:8 or 9, q.v.
14-15	16	6832:7	E.	13	f.	1 faint	$\frac{1}{8}$	infancy	...	From 6811:8 or 9, q.v.
25	25	6840:6	E.*	48	f.	2	1	infancy	...	See text, p. 40
27	28	6842:8	Bnk.*	21	f.	...	...	never	...	? from 6832:7
28	28	6842:9	Bnk.*	23	f.	4	$\frac{9}{10}$	infancy	...	From 6830:9
Dec. 16	Dec. 18	6858:2	Bmy.	61	f.	3	$\frac{1}{8}$	infancy	...	From 6830:9
13	18	6858:3	Bmy.	41	m.	2	$\frac{1}{7}$	infancy	...	See note
Dec. 17	Dec. 19	6859:8	E.	39	m.	1	$\frac{3}{18}$	infancy	...	Out-patient at Infirmary
										Wife had unrecognised illness. Text, p. 40

* Developed symptoms when in quarantine.

† In hospital from 24th October.

Vaccination and Infectivity.—Continued.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area. sq. ins.	Date.			
1904. Dec. 21-22 25	1904. Dec. 23 27	6862:4 6864:4	N. C.	17 27	m. m.	3 ...	1 ...	infancy never	...	...	From brother at EastArdley. Text, p. 40 From Worksop. Note
Dec. 29-31 1905. Jan.	1905. Jan. 1 3 5 7 9 9 9 9 10 10	6869:2 6870:5 6873:3 6874:7 6875:6 6875:7 6876:0 6877:1 6877:2 6877:0	Bmy. N.* N.E. N.E. N.E. N.E. E. N.E. C.* N.E.	58 59 22 39 15 39 22 44 29 39	f. f. f. f. f. f. m. f. m. f.	2 2 4 2 4 2 ... 3 3 3	$\frac{1}{4}$ $\frac{1}{8}$ $\frac{3}{8}$ $\frac{1}{8}$ $\frac{3}{8}$ $\frac{3}{8}$... $\frac{1}{10}$ $\frac{4}{10}$ $\frac{1}{2}$	infancy infancy infancy infancy infancy infancy never infancy infancy infancy	...	...	From 6858:2 or 3 From son, 6862:4 See text, p. 41 See 6873:3 From 6878:1 q.v. From 6878:1 q.v. Possibly same source as 6874:7, friend From 6878:1 From 6864:4 q.v. From 6878:1 q.v.
1904. Dec. 25	1904. Dec. 10	6878:1	N.E.	13	f.	3	$\frac{2}{5}$	infancy	...	...	See 6873:3
1905. Jan.	1905. Jan. 1-2 4 2-3 9 10 10 10 10 10 9-10 12-13 13-14 (f.) 12 13 20-21 23 23-24 26 27 24-25	6878:2 6878:3 6878:4 6878:5 6878:6 6879:8 6879:9 6879:0 6880:0 6881:4 6882:7 6883:4 6883:5 6883:6 6891:7 6891:0 6894:2 6895:8 6896:2 6896:6	N.E. N.E. N.E. N.E.* N.E. N.E. C.* N.E. N. E. C. N.E. C. N.E. Bmy. N.E.* N.E. N.E. N.E. A. & W.	9 7 8 48 20 7 54 8 31 17 71 32 74 60 42 4 40 29 39 37	f. f. f. m. m. m. m. f. m. m. m. f. m. m. f. f. f. m. f. m.	4 4 4 3 4 1 4 4 1 4 3 ... 1 ... 2 2 1 not succ.	$\frac{1}{2}$ $\frac{3}{8}$ $\frac{1}{8}$ $\frac{1}{4}$ $\frac{3}{8}$... $\frac{3}{16}$ $\frac{4}{16}$ $\frac{4}{16}$ $\frac{1}{2}$ 1 1 ... $\frac{1}{2}$... $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$...	infancy infancy infancy infancy infancy never never infancy infancy infancy infancy never infancy never infancy infancy infancy infancy	...	...	do. do. do. From 6878:1 q.v. From 6878:1 q.v. From 6878:1 q.v. From 6864:4 q.v. From 6878:1 q.v. Rent collector; from 6878:1 q.v. Mother takes lodgers From 6864:4 q.v. From 6878:1 or others of group From 6864:4 q.v. From 6864:4 q.v. Probably from husband, <i>per fomites</i> From father or mother, 6877:1 or 6878:5 Note Pawnbroker; cases in district From 6883:6 q.v. Newsagent; from 7001:9

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCE OF INFECTION, ETC.
						No. of marks.	Area. sq. ins.	Date.			
1905. Jan. (f.) 25	1905. Jan. 25	6896:8	N.E.	$\frac{7}{36}$	f.	...	...	never	...	Jan. 18, succ. (E. Jan. 25)	From mother 6883:4 (born in hospital Jan. 18). From 7001:9, <i>per fomites</i> , <i>q.v.</i> From group 6873:3, <i>q.v.</i> From 7001:9 Note Note v. 6876:0
28-30	30	6897:7	N.W.	56	m.	2	$\frac{1}{8}$	infancy	...	...
28	30	6897:8	E.	12	f.	1	$\frac{1}{8}$	infancy	...	...
27-28	31	6899:1	A. & W.	37	f.	2	$\frac{5}{8}$	infancy	...	...
30	31	6899:5	N.E.	24	f.	3	$\frac{1}{8}$	infancy	...	...
28	31	6899:7	S.	11	f.	1	$\frac{1}{8}$	infancy	...	...
29	1	6900:6	E.	21	f.	1	$\frac{1}{8}$	infancy	...	...
29	1	6900:9	A. & W.	30	f.	2	$\frac{1}{8}$	infancy	...	...
30	1	6900:0	E.	54	m.	3	$\frac{1}{8}$	infancy	...	...
24-27	1	7001:1	C.	42	f.	3	$\frac{3}{8}$	infancy	...	...
28-30	1	7001:2	C.	49	f.	2	$\frac{3}{8}$	infancy	...	...
15	1	7001:3	C.	21	m.	not succ.	...	infancy	...	...
20-23	1	7001:4	C.	29	m.	3	$\frac{3}{8}$	infancy	...	...
11-15	1	7001:5	N.E.	41	m.	2	$\frac{3}{8}$	infancy	...	...
30-31	1	7001:6	N.E.	43	m.	2	$\frac{1}{2}$	infancy	...	...	Same group as 6873:3 do.
1904. Dec. 24	2	7001:9	A. & W.	32	m.	1	$\frac{3}{8}$	infancy	...	...	Cleckheaton, via Halifax. Text, p. 42
1905. Jan. 7	2	7001:0	A. & W.	$\frac{7}{12}$	f.	...	...	never	...	...	From 7001:9 See note to 6899:5
31	3	7003:1	C.	21	f.	4	$\frac{1}{4}$	infancy	...	Feb. 4, succ. ...	Bricklayer, out of work. Lodging-house Visited Batley Carr, Jan. 14
1-2	2	7003:2	N.E.	33	m.	2	$\frac{1}{2}$	infancy	...	...	Conf. group, 6873:3 See note to 7001:9
1-2	3	7003:3	N.	33	m.	3	$\frac{1}{4}$	infancy	...	...	See note to 7001:9
3	3	7004:6	N.E.	27	m.	3	$\frac{1}{4}$	infancy	...	...	See note to 7001:9
5	6	7007:9	Bnk.	68	f.	1	$\frac{1}{2}$	infancy	...	Jan. 22, succ. (E. 6th)	Prim. Meth. local p.
6	6	7008:1	A. & W.*	4	m.	...	...	never	...	...	Mother of 6899:7, <i>q.v.</i> See note 6899:5 See note to 6899:7
1	7	7008:7	A. & W.	27	m.	1	$\frac{3}{8}$	infancy	...	...	From brother, 7001:9 Same as 7011:2, v. note to 6899:7 do.
7	8	7009:3	E.H.	25	f.	2	$\frac{3}{8}$	infancy	...	...	From son, 6896:6 From sister, 6899:7, <i>q.v.</i> See 6873:3 From 6899:7, <i>q.v.</i>
10	10	7010:7	S.*	39	f.	4	$\frac{3}{8}$	infancy	...	...
10	10	7010:8	C.	35	f.	not succ.	...	infancy	...	...
7	10	7011:2	S.	35	m.	3	$\frac{1}{8}$	infancy	...	...
7	11	7011:3	Bnk.	35	f.	1	$\frac{3}{8}$	infancy	...	...
8	11	7011:9	S.	35	f.	1	$\frac{3}{8}$	infancy	...	...
8	11	7011:0	S.	43	m.	1	$\frac{1}{2}$	infancy	...	...
11	11	7012:1	A. & W.*	16	m.	1	$\frac{1}{8}$	infancy	...	...
10	10	7012:4	S.*	58	f.	3	$\frac{1}{8}$	infancy	...	Jan. 30, succ. (E. Feb. 10) Feb. 1, succ. (E. 10th)	
12	13	7013:1	N.E.	$\frac{4}{12}$	f.	...	...	never	...	...
12	14	7014:7	E.H.	39	f.	2	$\frac{1}{8}$	infancy	...	...
	14	7014:7	E.H.	42	f.	1	$\frac{1}{8}$	infancy	...	...

* Developed symptoms when in quarantine.

Vaccination and Infectivity.—Continued.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.		RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCES OF INFECTION, ETC.
						No. of marks.	Area, sq. ins.			
1905. Feb. 13-14	1905. Feb. 15	7015:9	E.	18	f.	2	1	Same as 7014:7, v. note to 6899:7 See 6873:3 group Furnished rooms; same family. From 6900:0. Same w.c. Next door to 6900:0. Same w.c., lime-washed Feb. 6th Note Note to 7025:1 v. note to 6899:7 Note to 7025:1
17	17	7017:0	E.H.	11	f.	1	$\frac{1}{4}$	...	...
17	18	7019:3	N.E.	20	f.	4	$\frac{1}{5}$	...	...
(f.) 16	18	7019:4	E.	34	f.	3	$\frac{1}{2}$	...	...
16	18	7019:5	E.	7	f.	...	...	...	...
14	18	7019:6	E.	2	f.	Per fomites from 7017:0, v. note to 6899:7
17	18	7019:7	E.	24	m.	1	$\frac{1}{8}$	...	...
24	24	7025:1	E.	42	m.	2	$\frac{1}{2}$	...	...
24	25	7025:8	E.	43	m.	2	$\frac{1}{2}$	...	...
24	25	7026:1	Hol.	39	m.	4	$\frac{2}{5}$	...	...
24	25	7026:2	E.	55	m.	2	$\frac{2}{5}$	Note to 6899:7
27	25	7029:4	A. & W.	19	f.	3	$\frac{1}{2}$	...	...
3-4	5	7033:3	W.H.	30	f.	1	$\frac{1}{6}$	...	...
4-6	6	7034:6	Hdy.	42	m.	1	$\frac{1}{8}$	...	...
6	7	7035:5	N.W.	38	f.	3	$1\frac{1}{4}$	...	...
4-5	7	7035:6	S.	39	f.	2	$\frac{5}{8}$	From 7039:4 Unrecognised case v. note to 6899:7 Coal getter, Garforth Publican, Meadow Lane Telephone worker From 7029:4 Same as 7039:5, v. note to 6899:7 Next door to 7026:1. Same w.c. Contact 7036:8 6899:5 group, q.v. Children at same school as 7039:5
5-6	7	7035:7	S.	14	f.	...	...	...	...
8	8	7036:7	S.*	39	m.	2	$\frac{1}{2}$	...	...
14	8	7036:8	S.	12	m.	...	...	...	...
8	9	7038:1	W.H.	47	f.	1	$\frac{1}{4}$	...	...
20-21	11	7039:4	Hol.	30	f.	Contacts from 7041:5 v. note to 6899:7 Wife of 7049:9, v. note to 6899:7 Sister of 7039:5, v. note to 6899:7
10-11	11	7039:5	S.	9	m.	...	...	...	...
9	11	7039:6	N.E.	36	m.	3	$\frac{1}{3}$	...	...
10	12	7039:9	S.	41	m.	3	$\frac{1}{3}$	...	...
8-11	13	7041:3	W.H.	24	m.	2	$\frac{2}{3}$	...	...
13	13	7041:4	A. & W.	21	m.	3	$\frac{2}{3}$	Mar. 14, succ. (E. 21st) Mar. 14, succ. (E. 21st) Mar. 14, succ. (E. 21st) Mar. 14, succ. (E. 21st) Mar. 21, succ. (E. 22nd)
9	13	7041:5	W.H.	10	f.	...	...	...	...
15	15	7043:0	Hol.	47	f.	2	$\frac{1}{3}$	...	...
16	16	7045:6	S.	45	f.	1	$\frac{2}{3}$	...	...
19	20	7049:1	Hdy.	29	m.	2	$\frac{1}{6}$	...	...
19	20	7049:9	S.	44	m.	2	$\frac{2}{3}$	Wife of 7049:9, v. note to 6899:7 Sister of 7039:5, v. note to 6899:7
21	22	7052:3	W.H.*	12	m.	1	$\frac{1}{3}$	...	...
21	22	7052:4	W.H.*	7	m.	...	...	...	...
21	22	7052:5	W.H.*	4	m.	...	...	...	...
21	22	7052:6	W.H.*	2	m.	...	...	...	...
22	23	7052:7	S.*	42	f.	1	$\frac{1}{4}$
22	23	7052:8	S.*	6	f.	4	$\frac{1}{6}$	...	...

* Developed symptoms when in quarantine.

Date of eruption.	Date heard of.	Zym. book No.	Ward.	Age.	Sex.	PRIMARY VACCINATION.			RE-VACCINATION (IF ANY) BEFORE CONTACT.	VACCINATION (IF ANY) AFTER CONTACT.	REMARKS AS TO SOURCES OF INFECTION, ETC.
						No. of marks.	Area sq. ins.	Date.			
1905. Mar. 23 23-24 23 24 22-23 25 22 23-26 25 27 27 28 26 28 29-30 26-28 30	1905. Mar. 23 24 24 24 25 26 26 26 27 27 28 28 30 30 30 31	7052:9 7053:6 7053:7 7054:1 7054:0 7055:6 7055:7 7055:8 7056:7 7056:0 7057:1 7058:5 7058:6 7059:1 7059:5 7059:6 7060:6	E. Hdy. N.W. W.H.* N. W. W.H. N. Hol. E. S.* Hol.* Hdy. Bank N.W. S. A. & W.	22 42 23 30 25 14 26 27 35 53 17 56 18 42 34 50 40	m. m. m. f. m. f. m. m. f. m. m. m. f. m. f. f. f.	4 1 4 4 4 ... 3 4 2 2 2 2 3 3 3 3 2	1 1/4 1/8 1 1/4 1 1/2 4/5 ... 7/8 1 1 1/4 1/8 3/8 5/16 5/8 1 1/4 1/2 1 1 1/2	infancy infancy infancy infancy infancy never infancy infancy infancy infancy infancy infancy infancy infancy infancy infancy infancy	1903, no marks ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ...	... ... ... Mar. 13, succ. (E. 24th) Mar. 17, succ. (E. 27th)	From 7041:3 Possibly from 7041:3 Common with 7054:0 Mother of 7052:3, 4, 5, 6, v. note to 6899:7 Common with 7053:7 Niece of 7054:1. Contracted at Hunslet Possibly from 7039:4 From 7041:3 Son of 7049:9 Husband of 7043:0 From 7041:3 group Took in casual lodgers
April 5 12 29 2-3 9	April 6 13 30 May 3 10	7104:6 7105:8 7110:6 7122:5 7124:7 7127:8	W.H.* W.H.* A. & W. S. A. & W. N.	33 1 1/2 33 32 28 41	f. m. f. m. f. m.	1 ... 2 2 2 3	1 1/2 ... 1/8 5/8 1 1/4 1/3	infancy never infancy infancy infancy infancy	... ... ... ... ... ...	Mar. 26, succ. (E. Apl. 5) Mar. 26, succ. (E. Apl. 6)	} From 7055:7 From 7039:5 group. Note ? 7059:6. Note Ilkley Horsforth

* Developed symptoms when in quarantine.

NOTES TO TABLE 8.

The notes to the first page of table 8 will be found on pp. 108-109 of the 1903 report, as the table and notes in regard to small-pox were brought up to the end of the second quarter of 1904 in that report.

* * *

Patient 6637:3. There seems a pretty strong probability that this man received his infection from a tramp. He stated to our inspector that on Monday evening, July 4th (1904), he was standing near the Palace Inn, Kirkgate, when a tallish tramp came up to him and asked for a copper or some tobacco. The patient remembers that this man had a rash on his face and complained of being ill, and the fact was impressed upon his memory by his hearing a night or two afterwards that a tramp, who had gone from Leeds to Selby, had been removed from the Selby Workhouse with small-pox.

Dr. Todd, Medical Officer of the Selby Workhouse, has been kind enough to inform me that a man of 35, M. M., was admitted to their workhouse at 7.45 p.m. on the 18th of July, 1904, and transferred early the following morning to the Sherburn Hospital. He stated that he had come from Leeds, via Church Fenton, where he had slept the two previous nights. As patient 6637:3 developed his own eruption on the 17th of July, it is probable that some third man, who perhaps never went to Selby at all, was the man to whom he referred. On the other hand it was just possible that M. M., passing through on the 16th or 17th, and suffering from the backache and malaise of small-pox, might have been the man to whom our patient referred, and he might have given us the wrong date of July 4th. But if M. M. was the man and went through on the 18th (Monday), he could not have slept in Church Fenton on the 16th and 17th. We do not, however, think that the date, July 4th, is wrong. It is arrived at in the following way. The man remembers distinctly that it was on the Monday night after his wife went to the Infirmary and between two visits that he paid her in that

institution. She was admitted to the Infirmary as an in-patient on June 26th; and he visited her on the following Saturday and again on the Tuesday, which are the visiting days, but not afterwards. It was on the Monday between these two visits that he interviewed this tramp. The date of the two visits is confirmed by his wife.

* * *

Patient 6686:6. This case seems to have been the source from which 6694:1, 6694:2, 6696:4, and 6696:6, derived their infection. The patient's illness was not heard of until the third day of the rash, which was dated September 25th, and as the two earlier of the cases regarded as derived from his have their eruptions dated October 6th, it seems likely that they (the step-father and the baby sister) received the infection before his eruption had developed. Two days later (October 8th) a brother, aged 15 (6696:4) developed the eruption. These three were all quarantined at Manston Cottages at the time. The next day an aunt (6696:6) living in a different house, under observation but not in quarantine, also developed the eruption of the disease. In all these four cases the patient was removed to hospital the day of the eruption. No other case could be traced to any of them. The only one with a legitimate incubation period was the aunt (6696:6) living in a different house. She, of course, may have seen the boy the day of his eruption. The others were probably infected from his clothes before the eruption appeared. The question arises:—How did he and his clothes become infected? No visitor or temporary lodger, we are told, stayed in the house during the three weeks before his eruption. The last case known in Leeds was that of a girl (6671:5) at the other end of the town who had come from Ravensthorpe a month earlier, where the disease was prevalent, without having had her clothes disinfected. There was no reason to suspect that this boy had been in contact with her. If the statement about visitors was correct, which we somewhat doubt, the most probable source of infection would seem to have been the out-patient room at the Infirmary.

The boy, Harry (6686:6), the step-son of the tenant of the house, had a fall and cut his head on September 9th, and was repeatedly at the casualty department of the Infirmary between that date and Friday, September 23rd. His name is entered on the 11th and 12th, but other records of his attendance are wanting, though his friends say he was there on the 23rd. It is known that patients from Earlsheaton (Dewsbury), were there on the 10th, from Morley, and also from Wakefield, on the 12th. These seem to have been first attendances. The bulk of the cases treated in the casualty department are only entered on their first call, not subsequently. That the infection was probably got at the Infirmary from contact with persons from the Dewsbury district is rendered more probable by two other cases which occurred.

One was that of the dispenser (6691:9) who mixed freely with the people in the waiting room of the out-patient department, and who developed a small-pox eruption on October 2nd or 3rd, his illness being reported on the 4th.

The other was that of an in-patient in the same institution. This boy, Ernest T., aged 4, was in the Infirmary with hip disease. He developed an eruption about September 15th, which was looked upon as chicken-pox. An aunt of his visited him frequently, mixing with the other visitors from Dewsbury and elsewhere in the admission room. She developed her own eruption about the 9th of October (6811:9). If the boy's illness was only mild small-pox the aunt may have carried the infection to him from the waiting room, and thus later received it herself from the boy. No other in-patient developed any similar disease, but the boy's mother developed the eruption of small-pox on the 23rd of October, and an important series of cases already mentioned in the text (p. 36) was probably due to this infection.

Patient 6816:6. This child belonged to Ossett. She was exposed in the infants' school there to the infection of small-pox. She was brought to Leeds on the 18th of October, and on the 28th or 29th she developed an eruption, which was reported to us on the 30th, and she was taken that day to hospital. It was found that she had never been vaccinated, and an attempt to vaccinate her was made on November 1st, the fourth day from the eruption, but unsuccessfully. The illness proved fatal. The case was one of a considerable number attending the same school. The chief violence of the outbreak had not occurred in the infants' department where this child had attended, but in standard IV., in room A. The first case in that standard was a girl, L.B., aged eleven, who was not removed to hospital until October 27th. In this room in which the first case occurred, and in this standard, there were eight unvaccinated children, and they all took small-pox, and there were nine who had been vaccinated in infancy and who escaped. Full particulars were published in a joint note by Dr. Kaye, Medical Officer to the West Riding County Council, and Dr. Greenwood, Medical Officer of Health for Ossett.

* * *

Patients 6858:2 and 3 are probably also cases of infection at the out-patient department of the Infirmary, where the man was attending for at least twice a week. He was there on the 29th of November, and his eruption was noticed on December 13th, and his mother's on the 16th. If the theory of infection at the Infirmary be correct he must have conveyed the infection to her in his clothes. There was another member of the family, a cousin and nephew, about whose movements there was a certain amount of doubt. He had been out of work for four months, and his wanderings were difficult to trace, but so far as we could ascertain he had not been in any infected neighbourhood.

* * *

Patient 6864:4. On December 5th two men, S. and M., hawkers of pirated music and flowers, the former unvaccinated, the latter revaccinated at Blackburn two years ago, left Sheffield. From the 6th to the 12th they stayed at a common lodging-house at Worksop, some 15 miles further south.

On the 11th a case of small-pox was reported at this lodging-house. The man's eruption is said to have been seen on the 7th. S. and his mate left about noon on the 12th without having had their clothes disinfected.

On the 12th the pair, in the garments worn when for four days in contact with the small-pox case, stayed at a common lodging-house at Eckington ; on the 13th in one at Rotherham, and from the 14th to the 18th at one in Doncaster Road, Barnsley. From the 18th to the 20th, S. and his mate stayed at a "Model" in Wakefield, and arrived on the 21st at a common lodging-house in Kirkgate, Leeds. On the 22nd they changed to another doss house in Leeds. On the 23rd S. had pain in limbs and cough, followed by headache and eruption on the 25th. The keeper of the lodging-house, being new to his business, did not let us know until the 27th that the man was ill. S. visited the General Infirmary on that date and his case was notified. He was removed to hospital the same day, the clothes of 66 lodgers and 6 members of the keeper's family were disinfected, and 22 inmates were revaccinated and 2 vaccinated for the first time on the 28th or 29th. We offered to pay the lodgings of those who stayed in the lodging-house until January 13th.

Five men developed small-pox later, two of them unvaccinated, three vaccinated in infancy. All five had refused vaccination or revaccination. None of these newly vaccinated or revaccinated, so far as we know, were attacked.

We at once wrote to the Medical Officers of Health of the towns at which the two men had called (18 letters) on their way to Leeds, and we also wrote to all towns for which we knew any inmate to have left the Leeds lodging-house (18 letters).

On tracing the origin of these cases it was found that the man who had developed the disease at the lodging-house from which these wanderers came, contracted it at a colliery town in the south of Yorkshire nearly three weeks before his case was recognised. He had travelled about in his infected clothes during that period in Yorkshire and Derbyshire, and his presence in the Derbyshire town, where he encountered the men from Sheffield, led to more than a dozen cases in that town. Fortunately in Leeds, so far as we know, the resulting cases were limited to six, the five fellow-lodgers (6877:2, 6879:9, 6882:7, 6883:5 and 6883:6) and the occupant (6896:2) of the house to which one of them had gone without our knowledge before we heard of the case. Fortunately all the six cases were isolated early.

* * *

Patient 6894:2. The patient collected from families, and pawned for them, various articles of clothing. We obtained from the pawnshops some 40 parcels for which she held the tickets, many of them from infected houses.

* * *

Patient 6899:5 was a waitress at a coffee house in King Edward Street. A young man (7001:3) called to see her on January 16th. The girl's eruption came out on the 30th. His name, however, was not given to us as a contact at the time we investigated the girl's illness. The fact of his visit was not ascertained until we had every reason to consider that he had small-pox. The man was boots at an hotel in Vicar Lane, and seems to have had an eruption, not identified at the time as small-pox, on the 15th of January, the day before he visited the girl at the coffee house. He had been unsuccessfully vaccinated in infancy, and yet his attack seems to have been so mild that it was unrecognised by the landlord and he went about his usual avocations until the illness of the cook (7001:1) called for medical attendance and her case was reported to us as one of small-pox. The development of the cook's disease seems to have been a

gradual one, as she had headache on January 22nd, pains in back and limbs on the 24th, shivering 25th, and eruption on the 27th. Unless the premonitory symptoms were unusually prolonged, it seems probable that the eruption may have been out as early as the 24th, but unrecognised. On visiting, we found that the "boots" had been ill nearly three weeks, that a junior housemaid (7003:1) had been ill for two or three days, her eruption having come out on January 31st, and that the landlord's wife (7001:2) was in bed with an illness which was clearly small-pox, the eruption having been out about two days. It was also pretty clear that the billiard marker, who was also assistant boots, aged 29 (7001:4) had had small-pox, and we are inclined to date his eruption some time between the 20th and 23rd January, suggesting either that he and the "boots" had been exposed somewhere to a continued or intermittent source of infection, that the latter had availed himself of his opportunities of contracting the disease on the first of January, but that his assistant, the billiard marker, postponed the contraction of the disease until five days or a week later. Or it is, of course, possible that the "boots" may have been exposed to the infection about New Year's day or earlier, may have contracted the infection on that day and may have infected his assistant from his undisinfected clothes a day or two later.

On receipt of notification of the illnesses mentioned, we at once removed the patients to isolation, and the other inmates of the house were kept under observation. As complete a list as the landlord could give of those who had frequented the hotel during the preceding three weeks was obtained, and information sent to the medical officers of the various towns in which they lived. We heard afterwards of cases having arisen from this source in Birmingham and Manchester. Fortunately the information that we had sent to the various towns had enabled the authorities to take early precautions. A further case due to this infection occurred in

Leeds in the person of the book-keeper (7010:8). This young woman developed the eruption whilst under observation, and was removed to hospital as soon as it appeared. There was also a possibility that patient No. 7049:1 may have received his infection from one of this group, but the evidence is not sufficiently clear.

We are also at fault as to the origin of the group itself. The illness of the "boots" seems to have been the earliest of those of which we knew. He probably contracted the infection about New Year's day. The only infective case we know of on that day out of hospital was at Bramley in the person of a woman (6869:2) who had received the infection from the mother and son mentioned under cases 6858:2 and 3. The last preceding case had been the man from Worksop (6864:4), who was isolated on December 27th, and whose clothes and those of his fellow lodgers were disinfected on the 27th and 28th. If the "boots" came in contact with these men before the disinfection of their clothes he might, of course, have retained the infection in his own clothes and contracted the disease a few days later, but in that case, if his assistant received the infection from the same clothes, they must have remained infective for nearly a week. A more probable solution is that some unrecognised case, possibly some customer of the house was the cause of the disease in both "boots" and billiard marker

There had been, however, three men at the lodging house mentioned, who went away after the arrival of the patient S. (6864:4) before we visited and before the disinfection of the clothes of the inmates. All these three afterwards developed small-pox, and are included in the five. We know that one of them remained in Leeds.

Patient 6899:7. This child was in attendance at St. Joseph's School, Hunslet. It is probable that the infection at the school and also at St. Francis' was conveyed, as already said in the text (p. 42), from the Lemon Street area. One of the staff at St. Joseph's, resident at the Convent (7014:7), developed the disease, and it is possible that there may have been communication between the teachers at the two schools. Probably the first case of this group was one not entered in the list, a girl, Elizabeth, aged 10, in the fourth standard at St. Francis School, and living in Camp Field, sister and daughter of patients 7011:9 and 0. It was not until their cases occurred that we heard anything about her. When she was isolated at the cottages it was ascertained that she had a shivering on the 19th of December, headache on the 20th, and rash on the 21st. The girl's uncle lived in St. Ann's Lane, and her grandmother, first in Stone Street and then in Stainburn Square, all three houses close to Lemon Street. The girl, we are told, visited the grandmother every Saturday and Sunday at Stone Street, and we are told that on Mondays she took money to a club somewhere in Quarry Hill. She was, therefore, in frequent communication with the Lemon Street district where small-pox was at the time so prevalent. She was probably infective from the 21st of December until we isolated her on the 11th of February.

The next case known (6899:7) occurred in Oliver Street, off South Accommodation Road. The eruption appeared on January 28th, 1905. This girl was in attendance at St. Joseph's day School (Standard V.) on January 25th, and at the Sunday School on the 29th. We are not able to trace any actual contact between these two children. It is, of course, possible if there was any intercourse between the teachers at St. Francis' and St. Joseph's schools that infective material might have been carried from one to the other, but this is conjecture.

The next case in order of time was a man of 34 (7011:2), in Front Walk, Camp Field, an Irishman, one of whose children was in the third standard at the St. Francis' School. The following day a lad of 16 (7011:9) and a man of 43 (7011:0), brother and father of the girl, Elizabeth, at the St. Francis' School, developed the eruption.

On February 10th, the mother (7010:7) of the girl attending the St. Joseph's School, took ill, pointing to the probability that she received the infection from her daughter on the 27th of January. On the same day the baby sister (7012:4) showed the small-pox eruption. These cases, however, developed at Manston Cottages.

The next case was that of one of the teachers at St. Joseph's School (7014:7), living in the convent. This lady had been in contact with the first case in Oliver Street (6899:7) at Sunday School on January 29th, the day after the child's eruption had come out; her own eruption appeared on February 12th—exactly the incubation period.

Another St. Joseph's case, but not reported, seems to be that of a girl of 9 in the third standard. When isolated in the cottages she showed signs of having had spots of an irregular character on the forehead, thighs, back and legs, the usual situations of variola. The signs were, of course, indefinite, and the date uncertain. This girl was the daughter of patient 7033:3, who had probably received the infection from her.

Another case (7036:8) in which the same date, February 14th, for the eruption seems a little more distinct, was also an unrecognised one. Patient was a boy of 12, living in Water Lane, who attended the fifth standard at St. Francis School. He was seen by a medical man, and his disease was regarded in the first instance as chicken-pox. As three other members of the family, 7035:6, 7035:7 and 7036:7, afterwards developed small-pox, it was probable that the diagnosis was inaccurate.

On February 17th the eruption appeared on a girl of 11 (7017:0) in Cross Alton Street. This was another patient in the fifth standard of St. Joseph's School. She had a brother in the third standard at Jack Lane Board School, and a sister and brother in the infants' department of that school. As her infection would date from February 3rd, it is not improbable that she received it from the teacher of the fifth standard, at which class the first patient in Oliver Street (6899:7) attended. The teacher, it will be remembered, had developed the disease herself a few days earlier (February 12th).

In the next case (7026:1) in this district the eruption was dated February 24th. Patient was a man working on the tramway extension and living in Moore Street. His son, aged 12, was in the fourth standard at St. Francis' School.

After this came patient 7033:3, living in Moor Crescent, whose daughter, attending St. Joseph's School, had the unrecognised eruption already spoken of.

After this followed the three cases in the family in Water Lane (7035:6, 7035:7, and 7036:7) to which the boy with "chicken-pox" belonged.

On the 19th of March, the eruption appeared in a girl of 10 (7041:5) living in Pemberton Street and attending the St. Jude's School (standard III.) Pemberton Street is not very far from Moor Crescent, where the unrecognised case had been running about from the middle of February to March 5th. This girl, of course, might be the cause of infection of both the Pemberton Street and the following Jack Lane case.

The next case in this group (7039:5) lived in Jack Lane and was attending the same school and was in the same standard as patient 7041:5. Jack Lane and Cross Alton Street are very near together, and the children were probably playmates. The interval, however, is a little too long for direct infection as the

family in the last named street were isolated on the 17th February. It is, of course, possible that the boy of 12 in the 4th standard of St. Francis School living in Moore Street, and whose father's eruption appeared on February 24th, may have been the transmitter of the infection. Moore Street is a little further away from the part of Jack Lane in which the new case occurred, but sufficiently near for cross routes to and from school, and we have lately opened a playground at the bottom of Moore Street, which may possibly have attracted Jack Lane children. The eruption in the Jack Lane case appeared on the 10th or 11th of March.

On March the 19th, at Mulberry Place, a man of 45 (7049:9), who worked in Saynor Lane, developed the eruption of small-pox. He had two children at St. Jude's School, one aged 11 in the fifth standard, and one aged 9 in the second. In the Pemberton Street and Jack Lane families there were three children attending the third standard, one in the second standard, and three in the infant department. Without, therefore, supposing that the Mulberry Place children played with those from Cross Alton Street or Moor Crescent, there are possibilities of indirect infection from the School. The interval, however, from the first case at St. Jude's School (7041:5) to this man's illness is too short for immediate infection from any of the patients at the school.

Cases 7052:3, 4, 5 and 6 were from the same house as patient 7041:5 in Pemberton Street. They were attacked after removal to the Cottages. Patient 7052:7 was a contact from Mulberry Place, attacked in the Cottages, and patient 7052:8, a similar contact from the Jack Lane house, while patient 7054:1 was the mother of the Pemberton Street family, her eruption appearing on March 24th, also at the Cottages.

* * *

Patients 7025:1, 7025:8 and 7026:2. It is a curious coincidence that the eruption of small-pox appeared on the

24th of February in three men between 39 and 55 years of age, living in three houses near the East End Park. Careful enquiry was made for a common source of infection. Patients 7025:8 and 7026:2 were both engine drivers on the North Eastern Railway, one driving goods trains between Tadcaster, Leeds and Horsforth, the other running the mail between Leeds, Scarborough and Hull. Though not related they had the same surname. Patient 7025:1 was a labourer at Wilcock's brickworks. All three acknowledged to having frequented the White Horse Hotel, a neighbouring public-house close to their dwellings.

* * *

Patient 7110:6 was the housewife in a family at Wortley. She was the aunt of the child 7039:5, whose eruption appeared on March 11th. She had been in the house. Her clothes were disinfected on March 13th, and she was kept under observation until the end of that month. In addition to her visit the day before the removal of her niece she visited her sister's house again on the 31st, the day the family returned from the cottages. The house had in the meantime been thoroughly disinfected as well as the clothes of the quarantined persons, and they were all perfectly well when they returned. It seems, on referring to the inspector's report on the observation of the contact, that the child of twelve, vaccinated in infancy, had a spot on the face on the 22nd of March. On the 24th, however, he reported every member of the family perfectly well. When the mother's illness occurred we sent the whole of her family to the cottages. Another member of the family, a boy of eleven, was found at the cottages to have suspicious cicatrices on the arm, chest and legs, which might be due to small-pox or to impetigo. He was re-vaccinated successfully, so that Mr. Pearson concluded that the disease had not been variola. On the other hand, the girl had no visible scars when quarantined, but as her vaccination did not take there is a possibility that her ailment about the 20th of March had

been a very slight attack of small-pox. If so, it is rather remarkable that the mother's illness should have been so much later than the date of the girl's eruption.

* * *

Patient 7122:5 at the time of the attack was lodging in a house in a yard behind that from which patient 7059:6 had been removed a month earlier. It was found that two of the persons with whom he lodged had been removed to the cottages. On their discharge, on April 14th, after a fortnight's quarantine, they came to this house which was occupied by relatives. On the removal of the occupants of the house in the yard it had not been thought necessary to isolate all the members of the front house, which was some little distance away, as it was not known that there had been any communication between the two houses. It seems probable that some infected materials had been carried from the one house to the other, and remained there, probably in a drawer or some article of furniture undisinfected, to produce a new outbreak of the disease a month later. To do this it was not necessary that the article should have remained infective for much more than a fortnight. There is, of course, the possibility that some slight case may have occurred amongst the members of this second family and remained unrecognised, but there was no physical evidence of this at the time the second family were quarantined.

* * *

MEASLES.

The subject of measles has been dealt with in the general part of the report. The death rate for the year was 0·77 against an average in the preceding decade of 0·47. The disease, as already mentioned, was specially prevalent in the first and second quarters of the year 1904. Its mortality was exceedingly low during the first and second quarters of 1905. Several schools were closed during the year 1904, at least as to their infant departments, on account of the prevalence of this disease. Our information as to cases is scanty. Notification is not compulsory.

Table showing cases of Scarlet Fever heard of in Leeds during the fifteen years, 1890-1904, with the numbers admitted to the city fever hospital and the deaths in the city and in hospital; showing also for biennial periods the relations to the population of the deaths in the city, and the admissions to hospital.

	Cases. †		Deaths.		Per 1,000 living (Annual rates).	
	Heard of.	Admitted to hospital.	City.	Hospital.	Deaths in city.	Cases in hospital.
1890	337	133	103	23	} 0·23	0·39
1891	328	152	66	18		
1892	812	440	74	19	} 0·14	0·83
1893	316	188	31	6		
1894*	967	453	52	18	} 0·13	1·21
1895	874	493	52	29		
1896	1,216	441	72	20	} 0·21	1·26
1897	1,791	576	95	27		
1898	2,002	532	121	25	} 0·22	1·43
1899	1,620	649	64	21		
1900	1,745	722	52	21	} 0·16	2·07
1901	2,280	1,038	82	39		
1902	1,962	1,041	56	23	} 0·19	2·37
1903	2,465	1,063	109	36		
1904	1,295	850	59	34		

* Notification became compulsory in May, 1894.

† "Cases heard of" does not include one fatal in the third quarter of 1894 (included, however, in the 52 deaths), of which we had no information till we received the Registrar's returns. Similarly one death in 1895, another in 1896, two in 1897, one in 1900, and one in 1901, are included in the death column, but not in that of cases heard of. Before May, 1894, there were, of course, many such.

SCARLET FEVER.

The death-rate from scarlet fever was a little lower (0·13) than the average (0·18) of the ten preceding years. The number of cases heard of in 1904 was 1,295 against 2,465 in 1903 and

1,962 in 1902. It will be seen from the table annexed that this is the smallest number in any complete year since 1896. In that year the number was 1,216, to which it had risen from 874 in 1895, the first year throughout the whole of which notification had been compulsory. It has, of course, to be remembered that a disease like scarlet fever occurs in great waves, extending generally over a considerable number of years. As notification has only been in force for ten years, it is difficult to draw any conclusions from the actual cases reported. It is obvious that at the beginning we should hear of considerably fewer cases than those which actually occurred. As medical men became more accustomed to notifying such cases they also became more careful to do so. In the ten years 1870-79 the deaths in Leeds from scarlatina were 3,090 and the death-rate 1·09; in the ten years 1880-89 the deaths were 2,255 and the death-rate 0·68, a fall of nearly 38 per cent. on that of the preceding period. The next ten years, 1890-99, the deaths fell to 725 and the death-rate to 0·18, a fall of 73 per cent. During the five years since, 1900-04, the deaths have been 358 and the death-rate has averaged 0·16.

It was not until quite towards the close of the year 1904 that we were able to take in all the cases in which removal was asked for. During 1905, so far as it has gone, we have been able to do so. It would be too much to attribute the great fall in the present year to the more complete isolation of the cases. It is, however, a fact that during a great part of 1904 we were greatly pressed for beds, although the total cases heard of had been fewer than in either of the preceding years. The cases hospitalled, per thousand of the population of the city, which, in the two preceding biennia had been 2·07 and 2·37, had fallen to 1·89. As already said, the disease was probably declining apart from hospital isolation. During the first and second quarters of 1905, the cases notified were 284 and 195 respectively, together 479. Of these 217 and 148, together 365, were isolated in hospital, that is, 76 per cent. in the first half of the present year,

as against 66 per cent. in the year 1904. The changed condition, however, is not shown simply by the numbers isolated. The 76 per cent. isolated during the earlier half of 1905 have generally been isolated as soon as reported, whereas it frequently happened in 1904 and in previous years that we were not able to take in patients when reported, and the disease had unnecessary opportunities of spreading at home. It was painful in many instances to refuse admission to hospital to proper cases for want of the necessary accommodation and to feel that the isolation we could effect was robbed of its proper influence by the delay in admission.

DIPHTHERIA.

During the 52 weeks diphtheria and membranous croup together caused 50 deaths—equivalent to a rate of 0·11 per thousand per annum. Ten of the 50 were due to membranous croup, the remaining 40 to diphtheria. This corresponds to a rate for the latter disease of 0·09 per thousand, the lowest I have had to record since 1892. To compare, however, with that year to the death-rate of 0·09 from diphtheria in 1904 must be added 0·05 from various kinds of croup. In 1892 the death-rate from this group was 0·13, making the whole rate 0·21 from diphtheria and croup of all kinds not spasmodic, instead of 0·14 as in the present year. In 1891, however, the rate from diphtheria and all kinds of croup was 0·12, in 1890 it was 0·16. During the years 1898-99-1900 the rates from diphtheria alone were 0·49, 0·71 and 0·55. Our present rate of 0·09 is quite as much as there should be any need for.

The deaths in 1904 from the combined group* occurred, 19 in the first, 9 in the second, 7 in the third, and 15 in the fourth quarters of the year (see table 17). The cases reported, as already shown in the report proper, were in the first quarter 103 diphtheria and 1 membranous croup, in the second quarter 73 and 3, in the third quarter 87 and 1, and in the fourth quarter

* That is, from diphtheria and membranous croup only, or what is now called diphtheria by the Registrar General.

85 and 8. The case death-rate would therefore appear to have been about 14 per cent. (13·850), a somewhat low one from these diseases. Eighty-five out of the 361 cases notified were treated in hospital and six of them died, or 7 per cent. (7·058). Carried to two places of decimals, the death-rate amongst those taken to hospital was 7·06, amongst those not removed 15·94. It has, of course, to be remembered that amongst the latter were several very young children whose cases were only reported when they were moribund. The 50 deaths also include four cases—three called diphtheria and one membranous croup—where the illness was not reported until after death, and which are not included in the cases notified, thus reducing the case death-rate of all cases notified to 12·74 and the rate of those not sent to our own hospital to 14·49.

CONTINUED FEVER.

During the third quarter we heard of 18 cases which we regarded as typhus. Our attention was called to the disease from the behaviour of certain cases which had been sent into the hospital as typhoid. We made a special survey of the districts from which these earlier cases had been sent, and removed several others as cases of typhus. The 18 cases returned in the third quarter included those sent in as typhoid. Eleven of them occurred in the North registration district, and 7 in the South-East. As to wards, 3 occurred in the Central, 8 in the North-East, and 7 in the East ward. Amongst the 18 cases were 3 deaths.

Typhoid fever was reported in 53 cases in the first quarter, 43 in the second, 84 in the third, and 87 in the fourth, altogether 267. Of these 140, rather more than half, were treated in hospital, 26 in the first, 18 in the second, 50 in the third, and 46 in the fourth quarter. Of the 140 cases treated in our hospital 22 died, or 15·7 per cent. Amongst those not sent into our own hospital the deaths, including five in the Infirmary, were 25, or 19·7 per cent. It is, of course, possible that

DIARRHŒA.

Registration districts.	Ward intercepts.	1890-94.		1895-99.		1900-04.	
		Deaths.	Death-rate per 1,000 per annum.	Deaths.	Death-rate per 1,000 per annum.	Deaths.	Death-rate per 1,000 per annum.
HOLBECK ...	Holbeck ...	135	1·22	175	1·38	217	1·51
	West Hunslet ...	13	0·76	11	0·62	13	0·72
HUNSLET ...	West Hunslet ...	130	1·23	147	1·24	123	0·93
	East Hunslet ...	148	1·12	249	1·62	222	1·29
	South ...	67	1·23	97	1·86	81	1·63
SOUTH-EAST LEEDS	South ...	56	1·51	39	1·18	44	1·53
	Central ...	4		2		3	
	East ...	180	1·41	256	1·90	249	1·76
OSMONDTHORPE	East ...	1	0·29	2	0·88	...	1·01
CHAPELTOWN ... (part of)	North-east ...	...		9		37	
	North { Chapel-Allerton ...	2	0·11	4	0·19	1	0·04
		23	0·56	47	0·73	30	0·33
NORTH LEEDS	North ...	110	1·36	135	1·62	138	1·60
	North-east ...	204	1·71	222	1·90	179	1·57
	Central ...	117	1·12	101	1·01	73	0·76
	Central in West ...	...		1		1	
WORTLEY ...	New Wortley ..	81	0·84	165	1·73	108	1·16
	Armley ...	85	0·84	139	1·13	95	0·66
	Wortley ...	24	0·63	37	0·89	37	0·83
	Bramley (Farnley) ...	5	0·27	6	0·30	9	0·40
BRAMLEY ...	Bramley ...	44	0·58	75	0·90	43	0·49
KIRKSTALL ...	Kirkstall ...	14	0·76	15	0·76	6	0·28
	Burley ...	78	0·91	108	1·00	86	0·66
	Headingley ...	15	0·28	24	0·40	11	0·17
CHAPELTOWN ... (part of)	Headingley (Meanwood)	1	0·27	2	0·23	3	0·25
	North-west ...	1		...		...
	Brunswick ...	2		2		2	
WEST LEEDS ...	Brunswick ...	59	0·56	119	1·15	69	0·68
	North-west ...	126	0·87	148	0·95	113	0·69
	Mill Hill ...	17	0·38	20	0·48	15	0·40
	West ...	133	1·08	106	0·87	88	0·74
CITY ...	...	1,875	1·00	2,463	1·21	2,096	0·96

other cases may have been taken into the Infirmary for treatment and not notified to us. One of the five deaths was that of such a patient. Another of the Infirmary deaths was that of an outsider from Carlton (Wakefield).

One case of continued fever, not removed to hospital, was reported in the third quarter. The patient lived in the West registration district, and in the North West Ward.

DIARRHŒA.

There were 13 deaths from diarrhœa in the first, 9 in the second, 394 in the third, and 35 in the fourth quarter. From enteritis the deaths were 15 in the first, 10 in the second, 51 in the third, and in the fourth quarter 15. The diarrhœa deaths totalled to 451, and those from enteritis to 91. Amongst both the mortality was heaviest among children. Of the 451 deaths certified from diarrhœa, 360 occurred in children under one and 65 among those between one and five. Eighteen were in those over 65. Of the 91 deaths from enteritis 71 were in infants, and 11 in those between one and five. Further particulars will be found in tables 17 in the text, and C in the appendix. The special incidence of infantile mortality in the third quarter of the year is dealt with in the report proper, and I would again direct attention to the diagram therein contained. Although the rate from diarrhœa proper was higher than that of either of the two preceding years it was itself lower than the rate that had occurred in 1901, 1900, 1898, 1897, 1895, 1893, and 1892. It was only slightly higher than in 1890 and 1899. It was perceptibly higher than in 1891, more than double the very healthy rate in the year 1894 and about 30 to 40 per cent. higher than in 1896, 1902, and 1903. The South East registration district, as usual, showed a high rate (see p. 83).

OTHER DISEASES.

Cases of puerperal fever were reported, 11 in the first, 5 in the second, 3 in the third, and 7 in the fourth quarter, 26 in all. The house conditions were carefully enquired into in 25. The

26th was one where the patient was delivered in the Leeds Workhouse. Eleven deaths were returned from this disease, one in the Holbeck Workhouse, three in Chapeltown, one in Wortley, four in Hunslet, and two in the West registration district. In 1903 the cases reported had been 26 and the deaths 10. In 1902 the cases reported were 21 and the deaths 12.

In table 17 will be found the deaths from some of the more important diseases. The deaths are referred to age groups, and shown in their corresponding quarters. The deaths from most of these diseases are also found in table A, part I., where they are referred to the districts in which they occurred, public institutions being considered as districts, and grouped according as the patients were under or over the age of five. In table C the deaths, also grouped as the patients were under or over the age of five, are allocated to the districts to which the patients belonged.

ILLNESSES NOTIFIED.

The usual table, showing the ages of cases notified from the several infectious diseases in the quarters of the year in which these cases occurred, will be found on pp. 76-77.

The subject of small-pox has been already dealt with, and a complete table given of every case heard of from the beginning of 1904 to the middle of 1905. This table is a continuation, part of it a reprint, of the table in the report for 1903, pp. 50-65, which contained the whole of the cases from the commencement of the outbreak in March, 1902, the early ones having been reprinted from the table of the previous year.

Table 8a also contains full particulars as to vaccination of all cases of small-pox during the 183 weeks ended 1st July, 1905, a total of 690 cases. During these three years and a

TABLE 17.

Causes of, and ages at, death during year (52 weeks) 1904.

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.							DEATHS IN SEVERAL QUARTERLY PERIODS (AT ALL AGES).				DEATH PER 1,000 FOR YEAR.
	All ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	I.	II.	III.	IV.	
Small-pox	2	1	1	...	...	...	..	...	...	...	2	0'00
Measles	344	74	252	17	1	...	...	114	160	68	2	0'77
Scarlet fever	59	2	43	11	2	1	...	19	16	17	7	0'13
Whooping-cough	208	84	115	9	...	...	...	95	72	26	15	0'46
Diphtheria and membranous croup	50	4	35	11	...	...	...	19	9	7	15	0'11
Croup	10	1	8	1	...	...	...	1	...	4	5	0'02
Fever {	3	...	...	...	...	3	...	...	...	2	1	0'01
	47	...	2	9	13	21	2	8	6	18	15	0'10

Epidemic influenza	32	...	2	...	2	20	8	14	4	1	13	0'07
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa	451	360	65	1	1	6	18	13	9	394	35	1'01
Enteritis	91	71	11	2	...	3	4	15	10	51	15	0'20
Puerperal fever	11	...	...	...	2	9	...	4	2	2	3	0'02
Erysipelas	9	3	...	...	...	4	2	3	1	1	4	0'02
Other septic diseases	5	2	1	...	1	1	...	1	2	1	1	0'01
Phthisis	626	6	16	26	123	426	29	190	174	116	146	1'40
Other tubercular diseases	369	138	131	43	20	36	1	90	101	106	72	0'82
Cancer, malignant disease	379	1	4	3	...	270	101	82	94	97	106	0'84
Bronchitis	655	160	96	8	5	214	172	253	131	74	197	1'46
Broncho-pneumonia	341	139	150	12	4	19	17	111	75	49	106	0'76
Pneumonia and pleuro-pneu.	322	52	78	18	24	112	38	105	84	55	78	0'72
Pleurisy	11	...	...	...	1	8	2	3	3	...	5	0'02
Other diseases of respiratory organs	81	15	13	4	2	33	14	25	18	14	24	0'18
Alcoholism }	57	...	...	...	...	49	8	20	12	14	11	0'13
Cirrhosis of liver }	...	...	...	...	...	...	...	...	...	...	...	...
Venereal diseases	29	20	1	...	1	7	...	6	7	5	11	0'06
Premature birth	274	274	...	...	...	...	...	67	65	69	73	0'61
Diseases and accidents of partu- rition	39	4	...	...	7	28	...	9	9	10	11	0'09
Heart diseases	636	1	3	17	37	400	178	189	149	141	157	1'42
Accidents	200	24	27	17	13	85	34	50	53	41	56	0'45
Suicides	45	...	...	...	8	32	5	6	15	11	13	0'10
All other causes	2710	771	227	76	76	741	819	788	698	595	629	6'04
All causes	8096	2207	1281	285	343	2528	1452	2300	1979	1989	1828	18'05

Cases of infectious diseases notified during the year 1904.

Cases notified in whole district.

Notifiable disease.		All ages.	Under 1 year.	1-2	2-3	3-4	4-5	1-5	5-10	10-15	5-15	15-20	20-25	15-25
Small-pox.	I.	6	..	..	..	..	1	1	..	..	..	..	3	3
	II.	22	..	..	..	..	..	..	1	..	1	2	4	6
	III.	12	..	..	..	1	..	1	..	2	2	1	2	3
	IV.	24	2	1	..	..	1	2	..	3	3	2	5	7
Totals ..		64	2	1	..	1	2	4	1	5	6	5	14	19
Cholera.	I.	..	..	..	..	..	..	..	..	..	..	..	..	..
	II.	..	..	..	..	..	..	..	..	..	..	..	..	..
	III.	..	..	..	..	..	..	..	..	..	..	..	..	..
	IV.	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..		..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria.	I.	103	1	5	4	7	15	31	25	8	33	6	8	14
	II.	73	..	4	3	9	6	22	23	6	29	2	8	10
	III.	87	..	2	7	6	6	21	25	7	32	7	8	15
	IV.	85	2	4	5	7	8	24	21	10	31	6	13	19
Totals ..		348	3	15	19	29	35	98	94	31	125	21	37	58
Memb. croup.	I.	1	1	..	..	..	..	..	..	..	..	..	..	..
	II.	3	..	1	..	1	..	2	1	..	1	..	..	..
	III.	1	..	..	..	..	1	1	..	..	..	..	..	..
	IV.	8	1	3	2	1	1	7	..	..	..	..	..	..
Totals ..		13	2	4	2	2	2	10	1	..	1	..	..	..
Erysipelas.	I.	86	2	1	..	..	..	1	4	2	6	4	5	9
	II.	68	1	3	2	..	..	5	2	4	6	2	5	7
	III.	74	2	2	..	..	..	2	..	3	3	3	12	15
	IV.	96	..	1	1	1	..	3	5	6	11	6	6	12
Totals ..		324	5	7	3	1	..	11	11	15	26	15	28	43
Scarlet fever.	I.	323	2	17	19	33	29	98	124	59	183	23	7	30
	II.	300	4	9	21	37	35	102	99	48	147	21	9	30
	III.	320	3	10	24	31	42	107	135	49	184	9	2	11
	IV.	352	5	16	17	33	33	99	148	52	200	17	18	35
Totals ..		1295	14	52	81	134	139	406	506	208	714	70	36	106
Typhus fever	I.	..	..	..	..	..	..	..	..	..	..	..	..	..
	II.	..	..	..	..	..	..	..	..	..	..	..	..	..
	III.	18	..	1	..	..	..	1	2	2	4	4	2	6
	IV.	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..		18	..	1	..	..	..	1	2	2	4	4	2	6
Enteric fever	I.	53	..	..	..	1	..	1	4	6	10	11	8	19
	II.	43	..	1	1	2	1	5	6	1	7	6	6	12
	III.	84	..	2	1	4	3	10	4	13	17	12	9	21
	IV.	87	..	..	1	2	1	4	10	13	23	14	10	24
Totals ..		267	..	3	3	9	5	20	24	33	57	43	33	76
Relapsing fever.	I.	..	..	..	..	..	..	..	..	..	..	..	..	..
	II.	..	..	..	..	..	..	..	..	..	..	..	..	..
	III.	..	..	..	..	..	..	..	..	..	..	..	..	..
	IV.	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..		..	..	..	..	..	..	..	..	..	..	..	..	..
Continued fever	I.	..	..	..	..	..	..	..	..	..	..	..	..	..
	II.	..	..	..	..	..	..	..	..	..	..	..	..	..
	III.	1	..	..	..	..	..	..	..	1	1	..	..	..
	IV.	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..		1	..	..	..	..	..	..	..	1	1	..	..	..
Puerperal fever.	I.	11	..	..	..	..	..	..	..	..	..	..	2	2
	II.	5	..	..	..	..	..	..	..	..	..	..	1	1
	III.	3	..	..	..	..	..	..	..	..	..	1	1	2
	IV.	7	..	..	..	..	..	..	..	..	..	..	1	1
Totals ..		26	..	..	..	..	..	..	..	..	..	1	5	6
Plague.	I.	..	..	..	..	..	..	..	..	..	..	..	..	..
	II.	..	..	..	..	..	..	..	..	..	..	..	..	..
	III.	..	..	..	..	..	..	..	..	..	..	..	..	..
	IV.	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..		..	..	..	..	..	..	..	..	..	..	..	..	..

half, of the 690 cases not one occurred in a vaccinated child under the age of five, and no death occurred in a vaccinated person under the age of 20. The value of figures of this kind is, of course, proportionate to their number. The absence of cases amongst the vaccinated under five would not amount to much, nor the absence of a death amongst the vaccinated under 20 had the total numbers dealt with been small. They are of value when we deal with so large a number as 690, even though as in this case spread over the three years and a half during which we were fighting the disease

In the annual report for 1890 and since that time there has been printed in the appendix a table entitled Table B, containing the number of cases of each infectious disease heard of. These were classified in registration districts and according as the age was under five, between five and fifteen, or above that age. The table also showed for each disease the corresponding numbers in each district where the cases were isolated in our hospitals. This table is still continued in table B, part 1, in the appendix. Since 1896, and in the report for that year, a similar table has been presented dealing in the same way with wards. This will be found also in the appendix as table B, part 2. Some of the information contained in these two tables has been furnished to the Committee in their quarterly reports, but without reference to the age of patients who have been distinguished each quarter according to the registration district and ward in which their illness occurred or was contracted. The quarterly tables have been reprinted in the annual reports since 1894, during which year notification became compulsory, and will be found in the reports for 1895 and onwards under the headings B 3, 4, 5, 6 and 7, each part dealing with a period of 13 or 14 weeks. In the present report we have collected the cases notified in the intercepts of wards and districts for a period of five years, and they will be found set forth in two tables in the third part of this report numbered 26 and 27.

PART III.—HEALTH OF DISTRICTS.

I have again to repeat that there is a considerable uncertainty as to the exact population of the divisions of which the City is composed. In tables 19 and 21, we have used the populations prepared before becoming aware of the manner in which the Registrar General now estimates the population of the City. These populations, which have been obtained in the manner described in previous reports, were those adopted during the course of the year in the quarterly reports. In table 22, on the other hand, which deals with intercepts, an attempt has been made to re-calculate the rates on the method now adopted by the Registrar General for the large towns, the populations having been got out for each intercept for 1903 and 1904 in his way, and the death-rates at all ages calculated upon them.

(1) MUNICIPAL WARDS.

Table 19 shows, assuming the correctness of the populations, that in the Central, North, North-West, Brunswick, Armley and Wortley, Bramley, and Headingley Wards, the rate was appreciably below that of the town as a whole, even when the deaths of outsiders are excluded from those in the City, as they are necessarily from the ward rates. In the North-East, it was practically the same as that of the City, less outsiders. In East Hunslet and West Hunslet Wards, the rate was not very different from that of the whole town, including outsiders. It was slightly above that of the town in Holbeck and Mill-Hill, and it was appreciably above that of the town in New Wortley and the West Ward, while it was very considerably above that of the town in the South Ward and the East Ward. To the exact variations as compared with previous years, I do not attach much importance, the uncertainty of the populations being too great.

TABLE 19.

Table shewing deaths in the four quarters of 1904, for each Municipal Ward, with the estimated population and the death-rate of the ward for the Year.

MUNICIPAL WARDS.	Population, estimated to middle of 1904.	First quarter, 1904.	Second quarter, 1904.	Third quarter, 1904.	Fourth quarter, 1904.	Fifty- two weeks.	Death- rate.
Central	20,692	106	70	73	89	338	16.39
North	42,311	176	135	144	146	601	14.25
North-East	36,572	180	163	178	124	645	17.70
East	28,857	219	197	203	146	765	26.60
South	14,666	114	67	109	84	374	25.59
East Hunslet ...	35,206	156	157	174	156	643	18.33
West Hunslet ...	30,421	154	133	146	113	546	18.01
Holbeck	29,216	127	139	133	144	543	18.65
Mill Hill	7,497	40	34	39	27	140	18.74
West	23,780	149	125	128	106	508	21.44
North-West	33,006	139	128	125	108	500	15.20
Brunswick	22,963	110	91	62	91	354	15.47
New Wortley ...	18,614	99	106	86	96	387	20.86
Armley & Wortley	38,474	201	150	142	154	647	16.87
Bramley	22,313	98	98	86	74	356	16.01
Headingley	45,554	187	143	114	132	576	12.6
Outsiders ... ..	...	45	43	47	38	173	..
Totals	450,142	2,300	1,979	1,989	1,828	8,096	18.05

(2) REGISTRATION SUB-DISTRICTS.

Of the two tables 20 and 21, the former is valuable. The value of the latter is diminished by the fact that the populations are, as already said, uncertain. Taken, however, generally, it may be remarked that the death-rate of the West registration district differs very little from that of the town as a whole when outsiders are omitted from the latter, although it is slightly below the rate when they are included. Leaving out for obvious reasons the small district of Osmondthorpe, it will be noticed that in Chapeltown and Kirkstall the rate is considerably below that of the town. In South-East Leeds, on the other hand, it is very considerably above.

When the populations of the registration districts are calculated on the new method of the Registrar General their rates become in the North 19·53, West 17·42, South-East 26·84, Hunslet, 18·41, Holbeck, 18·71, Wortley, 17·60, Kirkstall, 12·16, Bramley, 16·02, Chapeltown, 12·03, Osmondthorpe, 11·06.

It will be noticed that for the townships of Leeds there is very little change. The new rates for Hunslet and Holbeck are respectively about 0·3 and 0·5 lower. This is to some extent accounted for by the fact that the re-adjustment of the districts after the 1891 census had not been completely taken into account in the earlier estimate of the population. In Wortley, Kirkstall and Bramley the new rate was again about 0·3 below the old one, but in Osmondthorpe it was nearly 0·3 above. The principle change occurred in Chapeltown where the new rate is 1·47 in excess of the one printed in table 21, in table E, part I., and in table C. The increase of population during the previous decade had been so very large and building has been going on so rapidly since the date of the census that it is not improbable that the higher estimate of the population obtained by the earlier method is more nearly accurate than the newer one.

TABLE 20.

Shewing the number of deaths from certain specific causes and groups of causes in the 52 weeks of 1904 in the Sub-Registration Districts in the City of Leeds. All deaths in public institutions within the City of persons belonging to the City have been referred to the Sub-District to which they belonged.

	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough	"Fever."	Diarrhoea.	All seven.	Croup.	Phthisis.	Influenza and diseases of the air-passages other than consumption.	All other causes.	All causes
Leeds, North	...	55	2	6	33	17	73	186	6	104	210	643	1149
,, West ...	...	57	12	4	25	4	67	169	4	129	258	913	1473
,, South-E.	1	57	7	3	31	3	67	169	2	93	198	466	928
Hunslet ...	1	72	11	7	33	13	94	231	1	78	245	789	1344
Holbeck	...	40	6	4	5	2	47	104	...	36	121	369	630
Wortley...	...	15	12	2	31	5	50	115	3	86	189	707	1100
Kirkstall	..	14	3	4	22	1	21	65	3	44	85	354	551
Bramley...	...	9	2	4	14	1	11	41	1	17	61	170	290
Chapelton	...	24	3	5	14	3	21	70	...	31	69	284	454
Osmondthorpe	...	...	...	...	...	...	...	...	...	...	...	4	4
City of Leeds	2	343	58	39	208	49	451	1150	20	618	1436	4699	7923

One death each from measles, scarlatina, diphtheria, fever (enteric), 8 deaths from phthisis, 6 from influenza and diseases of the air-passages other than consumption, and 155 deaths from other causes, occurred in the City of persons not belonging to Leeds; on the other hand 116 deaths occurred during the year of Leeds persons in West Riding Asylums and other public institutions, outside the City. Of these 14 were from phthisis, 11 from the lung groups, and 91 from other causes.

Croup includes 10 deaths from membranous croup, 2 in North, 4 in West, 1 in South-East, 2 in Wortley, and 1 in Kirkstall

TABLE 21.

Shewing the mortality stated in deaths per 1,000 of the population of the Sub-Districts, as estimated to the middle of 1904.

	Small-pox.	Measles	Scarlatina.	Diphtheria	Whooping-cough.	"Fever."	Diarrhoea.	All seven.	Croup.	Phthisis.	Influenza and diseases of the air-passages, other than consumption	All other causes.	All causes.
Leeds, North	...	0·93	0·03	0·10	0·56	0·29	1·24	3·16	0·10	1·77	3·57	10·92	19·51
,, West	...	0·68	0·14	0·05	0·30	0·05	0·79	2·00	0·05	1·53	3·06	10·83	17·47
,, S. E.	0·03	1·65	0·20	0·09	0·90	0·09	1·94	4·91	0·06	2·70	5·75	13·53	26·94
Hunslet ...	0·01	1·01	0·15	0·10	0·46	0·18	1·31	3·23	0·01	1·09	3·42	11·02	18·76
Holbeck ...	...	1·22	0·18	0·12	0·15	0·06	1·44	3·18	...	1·10	3·70	11·27	19·24
Wortley ...	...	0·24	0·20	0·03	0·50	0·08	0·81	1·87	0·05	1·40	3·08	11·52	17·92
Kirkstall ...	...	0·32	0·07	0·09	0·50	0·02	0·48	1·47	0·07	1·00	1·93	8·02	12·49
Bramley ...	...	0·51	0·11	0·23	0·79	0·06	0·62	2·31	0·06	0·96	3·44	9·58	16·34
Chapelton	...	0·56	0·07	0·12	0·33	0·07	0·49	1·63	...	0·72	1·61	6·61	10·56
Osmondthrp	...	...	...	...	...	...	...	...	...	...	...	10·82	10·82
City of Leeds	0·00	0·76	0·13	0·09	0·46	0·11	1·01	2·56	0·04	1·38	3·20	10·47	17·66

One death each from measles, scarlatina, diphtheria, fever (enteric), 8 deaths from phthisis, 6 from influenza and diseases of the air-passages other than consumption, and 155 deaths from other causes, occurred in the City of persons not belonging to Leeds.

Deaths from membranous croup are included under croup, not under diphtheria in this table.

On the other hand a consideration of the birth-rate suggests that the newer estimate is possibly the more accurate one. The birth-rate in Chapeltown on the previously calculated population was 21·64. On the newer one it rises to 24·65, or 3 per thousand higher. In Kirkstall the rate had been 24·22 on the old estimate; the new estimate reduces it to 23·59. With the exception of the small district of Osmondthorpe these are the lowest birth-rates in any part of the town.

(3) INTERCEPTS.

For the first time I am able to give you the deaths from all causes in intercepts. They are printed for the two years 1903 and 1904 in table 22.

It is perhaps desirable that I should remind you of what is here meant by an intercept. The older statistics for Leeds were all tabulated under registration districts and sub-districts. These were portions of the Poor-law Unions of Leeds, Hunslet, Holbeck, and Bramley, lying within the city, in which the births and deaths were registered by a sub-registrar. The township of Leeds is divided amongst three sub-registrars, whose districts are distinguished as North, West, and South-East Leeds. The vital statistics of the townships of Potternewton and Chapel-Allerton reach us from the registrar of the Chapeltown sub-district, who excludes from the returns sent us births and deaths in Roundhay and Seacroft, except in the latter case, those occurring in our own hospitals. Those of the Headingley township come from the sub-registrar of the Kirkstall sub-district, who has only one township in his area. From the district of Hunslet the returns are sent us for the township of the same name; those for the sub-districts of Rothwell and Whitkirk not coming to us, except in the case of the last-named sub-district, the registrar for which sends us the births and deaths for the township of Osmondthorpe, which lies within our boundaries. The sub-registrar for Rothwell sends the deaths of Leeds paupers in the

Hunslet Workhouse. Holbeck is a district with only one sub-district. We get from the registrar a return relating to Beeston and Holbeck townships, but not to Churwell, which, although within the sub-district, lies outside Leeds. The district of Bramley has three sub-districts, Bramley, Gildersome, and Wortley. The sub-registrar for the first-named sends us all his figures which relate to the township of the same name. The sub-registrar for Wortley sends his return for the three townships of Armley, Farnley and Wortley.

The last-named will serve to illustrate our use of the term "intercept." First of all we divide, and have for many years divided, the deaths registered in this sub-district according to their townships. Those in Farnley, along with those from the Bramley sub-district, all go to the Bramley ward, but those in the Bramley and Farnley townships are kept separately as belonging to two intercepts; the portion of the Bramley ward in Bramley being one, that of the Bramley ward in Farnley (Wortley) the other intercept. The Armley and Wortley ward contains the whole of the Armley township and that portion of the Wortley township not included in the New Wortley ward. The Armley and Wortley portions of the ward have been kept separate since 1901, and are considered as separate intercepts. The portion of the Wortley township and Wortley sub-district lying in the New Wortley ward is a separate intercept—an intercept in this case which is also itself a ward.

It has been already mentioned that the registration sub-districts of Holbeck and Hunslet were altered after the census of 1891. In the report on the census of 1901 the figures for these districts with their present boundaries are given both for 1901 and 1891. The wards within these districts were not altered, but the population of the South ward and Holbeck ward as published in the returns for the 1891 census were inaccurate. The re-adjustment of the Holbeck and Hunslet

areas has given us a considerable amount of trouble as the figures received from the local registrars at the time both of the 1891 and 1901 censuses did not sum up to those published by the Registrar General. We assumed his figures as correct, except in the two wards, just mentioned as inaccurately given in the 1891 census. Our corrections in these wards were verified in London, so that we keep to our own numbers in regard to them.

Having balanced the two registration sub-districts of Hunslet and Holbeck, we were able by comparing the portions of the South ward coming into one of them to localise the errors in the sub-registrar's returns at the time of both censuses, and the figures we have adopted for the intercepts so formed are probably correct.

In the same way, having satisfied ourselves as to where the error in the South ward had occurred, we were able to use that information to account for the discrepancy in the South-East registration district, which contained part of that ward. The errors in other parts of the town were trifling and easily allowed for. It will be seen that there was an advantage in taking the intercepts of townships and wards in order to reconcile the figures of the local registrars with those of the Registrar-General.

Mode of calculating populations.—Having settled the populations for each intercept for 1891 and 1901, the populations for 1904 have been got in the following manner. One-tenth of the difference between the population in 1891 and 1901 has in each case been multiplied by three-and-a-quarter and algebraically added to the population at the last census. The figure obtained by this method of arithmetical progression is then in each case multiplied by a factor, and this factor is the same used by the Registrar General in dealing in the same method with the populations of the town itself, and raising

the population obtained by arithmetical progression to what he considers it ought to be. This factor is obtained by him in the following way:—

The Registrar General's factor.—On considering the result at the recent census he found that the estimate which most nearly approached that result was obtained by supposing the population of the whole country to have increased at geometrical progression. He supposes, therefore, that the population of England and Wales in the middle of 1904 is that which would have obtained had the population increased by geometrical progression at a ratio found on the supposition that the populations at 1891 and 1901 were terms of a geometric series. As a matter of fact this is very easily done by subtracting the logarithm of the population in 1891 from the logarithm of the population in 1901, multiplying the difference of the logarithm by 0·325 and adding the result to the logarithm of the population in 1901, thereby getting the logarithm of the population of 1904. In the same way, taking the arithmetical progression and multiplying the arithmetical difference between the census populations of 1891 and 1901 by 0·325 and adding the product to the population enumerated in 1901, the population by arithmetical progression for 1904 was also found. Dividing the geometrical progression population by the arithmetical progression population gives the factor by which he multiplies the populations of Leeds and other large towns arrived at by arithmetical progression.

The advantage of the method is that when the populations obtained by it for the portions of any district are added together they total to the population for the whole district. Similarly the populations of any number of districts into which the whole country may be divided will total up to that of the whole country arrived at in the same way.

Comparison of methods of estimating populations.—It has been repeatedly pointed out in these reports that neither an estimate by arithmetical nor by geometrical progression

alone is satisfactory in Leeds, but that the population enumerated at the census in 1901 lay somewhere between the figures calculated to the date of that census by these two methods. That is to say, the population of Leeds calculated by geometrical progression to the date of the census in 1901 from the results of the 1881 and 1891 censuses came to 436,919, and that calculated by arithmetical progression to 425,891; when the census was taken the population turned out to be 428,968.

No method of estimating the populations with an interval of ten years between the censuses can give anything like reliable results. If, for instance, the population of the portion of the Potternewton township lying in the North-East ward had been calculated to the date of the 1901 census by geometrical progression from the data of the 1881 and 1891 censuses, it would have been 287, if by arithmetical progression from the same data, 240. As a matter of fact it amounted to 6,210.

If now, taking into account the figures given at the 1901 census, we estimate the population of this intercept for 1904, we may do so in any one of four ways. First, by arithmetical progression from data of the 1891 and 1901 censuses, when it comes to 8173. Second, by geometrical progression, which gives 19,958, or more than double. Third, we may combine the data of the three censuses and estimate by the method of interpolation, when we get for the intercept a population to the middle of 1904 of 38,700. The second and the third methods give such an improbable figure, that it is safer to take the fourth, which is the Registrar General's, obtained by multiplying the population obtained by the first method by a factor, such factor being the number of times the arithmetical progression estimate for England and Wales to the middle of 1904 goes into the geometrical progression estimate for the same area. The fourth method gives us 8,195. This figure is used in table 22.

TABLE 22.

Table showing deaths from all causes at all ages, and death rates at all ages in the intercepts of the wards and townships of Leeds in the years 1903 and 1904.

						Deaths, 1903.	Deaths, 1904.	Average death rate per thousand.	
HOLBECK	Holbeck					526	543	17·99	18·16
	West Hunslet					81	87	22·18	23·62
HUNSLET	West Hunslet					376	459	14·03	16·79
	East Hunslet					572	643	16·25	17·84
	South					174	242	17·73	24·38
SOUTH-EAST LEEDS	South	} 28·87	28·89 {			135	132	28·65	28·75
	Central					37	35	29·69	29·46
	East					629	761	22·08	26·43
OSMONDTHORPE ...	East	} 14·39	14·77 {			7	4	19·09	11·05
CHAPELTOWN ... (part of)	North-east					107	122	14·16	14·94
	North { C. A. Pott. }	} 9·28	10·92 {			45	47	9·21	9·38
						179	229	9·29	11·30
NORTH LEEDS ...	North					303	325	17·53	18·67
	North-east					493	523	21·84	23·26
	Central	} 15·52	15·83 {			294	301	15·46	15·92
	Central in W.					5	2	20·43	8·60
WORTLEY	New Wortley					357	387	19·24	20·92
	Armley	} 15·55	16·42 {			434	480	14·77	15·86
	Wortley					163	167	18·12	18·29
	Farnley					56	66	12·40	14·36
BRAMLEY	Bramley					259	290	14·52	16·02
KIRKSTALL	Kirkstall	} 11·93	12·16 {			74	50	17·39	11·59
	Burley					327	365	12·18	13·15
	Headingley					125	136	9·61	10·27
CHAPELTOWN ... (part of)	Headingley	} 15·57	13·06 {			20	25	15·67	19·21
	North-west					...	...	...	...
	Brunswick					45	31	15·98	10·67
WEST	Brunswick					289	323	14·40	16·14
	North-west					461	500	13·98	14·97
	Mill Hill					120	140	16·23	19·31
	West					457	508	19·28	21·48
CITY ... ..	...					7,150	7,923	16·17	17·66
	Outsiders					184	173	...	...

ASSOCIATION OF INTERCEPTS.

It will be noticed in looking at table 22 that in some of the districts we deal with an exceedingly small number of deaths. As in previous reports dealing with intercept death-rates for phthisis and diarrhœa, some of these adjacent districts have been grouped together. In this way portions of the South and Central wards have been associated. The township of Osmondthorpe has been associated with the portion of the Potternewton township lying in the North-East ward. The portions of the North ward lying in Chapel-Allerton and Potternewton townships have been also associated, and the portions of the Central ward lying in the North and West registration districts of Leeds. The last-named is that small triangle which has Lowerhead Row for its base and the Dispensary for its apex. When the old registration districts were made, New Briggate did not exist, and the West registration district was carried down North Street as far as the end of Lowerhead Row and then along Lowerhead Row to Briggate and then down Briggate to the river. When the present wards were arranged New Briggate existed, and the boundary of the Central ward was carried from the river up Briggate and New Briggate to the upper part of North Street, thereby cutting off this triangle. It forms a good example of an intercept, but as the population is a small and decreasing one, the mortality figures for it alone have no value.

The Armley and Wortley portions of the ward bearing the name of those two townships are sufficiently large to be separated, but in some of the earlier reports dealing with phthisis and diarrhœa, we had not the requisite data as to population in the two districts, and they were accordingly grouped. The same is true of the three divisions of Kirkstall. The portions of the Chapeltown sub-district lying in the Headingley, North-West and Brunswick wards are small, and in the report for 1899 they are alluded to as the "strip," and

are conveniently associated. One other point must be noted about table 22 ; it is common to all other tables dealing with intercepts since 1899. In 1891 a strip of Beeston township included within East Hunslet ward had a population of 123. In 1901 the population of the same district was 105. It was not considered sufficiently important to separate it from the rest of East Hunslet, and it has been counted as if it was a part of it, although really lying in the Holbeck registration area. In 1903 two deaths occurred in this portion of Beeston, in 1904 there were none.

COMPARATIVE MORTALITY.

Taking into account these associations, although separating the Armley and Wortley portions of the ward bearing their name, and the Kirkstall, Burley and Headingley portions of the Kirkstall registration district, which are sufficiently large to stand alone, and for some purposes keeping the parts of the North ward in the Chapel-Allerton and Potternewton townships distinct, it will be noticed that in 1904 the district with lowest death-rate was the Chapel-Allerton portion of the North ward, where the death-rate was 9·38 ; it had been even slightly lower the year before, 9·21. The population of this intercept was 5,028. Next came the Headingley part of the Headingley ward. The population was 13,289, and the death-rate in 1904, 10·27. In 1903 it was 9·61. The next lowest was the Potternewton portion of the North ward, with a rate of 11·30 in 1904 and 9·29 in 1903. When the whole of the Chapeltown portion of the North ward is taken together—that is the Chapel-Allerton and Potternewton portions combined—the rate is 10·92 for 1904, and 9·28 for 1903.

Next in order comes the Kirkstall part of the Headingley ward, with an estimated population in 1904 of 4,327 and a death-rate of 11·59. The death-rate in the year previous had been considerably higher (17·39). This district is, of course, too small for us to attach much importance, even to considerable variations in single years.

It will be noticed that while the North ward part of the Chapel-Allerton township had a low rate, 9·38, the rate for the Meanwood part was 19·21. Here, also, the district is too small for us to attach any importance to the rate for a single year. The Meanwood deaths in 1904 were 25, in 1903, 20, corresponding to a death-rate in the earlier year of 15·67. The estimated population of Meanwood for 1904 is only 1,306.

I pass over the low death-rate of 10·67 in the Brunswick ward portion of Potternewton, which also is a very small intercept with a population of only 2,915, and the Osmondthorpe township with 11·05. The deaths in this last-named township in 1904 were 4; in 1903 they had been 7, the latter equivalent to a rate of 19·09. The Brunswick portion of Potternewton had a rate in 1903 of 15·98. The strip of Chapeltown lying in Headingley, North-West and Brunswick wards, with a population of 4,302, had a general death-rate of 13·06, and the year before of 15·57. The Headingley portion of it was mentioned in the previous paragraph.

Then comes the Burley portion of Headingley, with a population of 27,853, and a death-rate of 13·15. The death-rate of the whole Kirkstall registration district, that is to say, of the Headingley ward, less Meanwood, was 12·16—the Burley portion having the highest rate, and the Headingley portion the lowest.

Farnley township, in the Bramley ward, an intercept of Wortley sub-district and Bramley ward had a population in 1904 of 4,611, and a death-rate of 14·36. The latter was somewhat higher than that in the preceding year (12·40).

The North-East ward part of Potternewton is sufficiently large to be considered by itself. It had a rate of 14·94, but we have tacked Osmondthorpe to it, bringing it down to 14·77. The North-East ward portion of this combination had a lower death-rate in 1903, the East ward portion a higher

one, the combined death-rate was lower, and amounted to 14·39. The population of Osmondthorpe is nearly stationary. That of the North-East ward in Potternewton has been already spoken of.

The portion of the North-West ward in the West registration district—that is practically the whole of the North-West ward, except its share of the strip in the Chapeltown district with a population only of 81—had a death-rate of 14·97 and a population of 33,508. In 1903 the death-rate was 13·98.

The township of Armley by itself had a rate of 15·86. When combined with the portion of Wortley outside New Wortley, thus forming the Municipal ward, its rate was 16·42. In both cases the deaths were more numerous in 1904 than in 1903, the rate in the earlier year being 14·77 for Armley township, and 15·55 for the ward.

North Leeds, as a rule, has a somewhat high death-rate, but the portion lying in the Central ward had a rate of only 15·92, and when combined with the small portion in the West registration district, of 15·83. The two portions combined had 303 deaths in 1904 against 299 in 1903.

The township of Bramley had a death-rate of 16·02. Its population is estimated at 18,164. In 1903 the rate was 14·52.

The Brunswick ward portion of the West registration district, with a population of 20,081 in 1904, had a rate of 16·14, in 1903, of 14·40.

The Hunslet part of the West Hunslet ward had a death-rate of 16·79; the East Hunslet portion of 17·84. In 1903 the rates were 14·03 and 16·25, both lower. Holbeck had a rate of 18·16; higher than that of the borough when outsiders are omitted, but practically the same when the outsiders are

included. The portion of Armley and Wortley ward lying in the Wortley township has been already spoken of. Its death-rate, alone, was 18·29 in 1904, and 18·12 in 1903.

The portion of North Leeds lying in the North ward had a rate of 18·67, higher than that of the borough either with or without outsiders. In 1903 the rate was 17·53.

Meanwood has already been spoken of as having a death-rate of 19·21. When combined with the rest of Chapel-Allerton the rate was 11·41; when combined with the rest of the western strip of Chapeltown, 13·06. It is really part of the Headingley ward.

Mill Hill had a rate of 19·31, New Wortley of 20·92; the West ward 21·48. The portion of the North-East ward in the township of Leeds, including a great portion of the Quarry Hill and York Street areas, had 23·26 deaths per 1,000 living.

The West Hunslet part of Holbeck registration district, including Beeston, had a death-rate of 23·62. The district, however, is not a very large one, and it is possible that the population, estimated at 3,696, has increased considerably more since the census than we have allowed for.

The Hunslet part of the South ward had a death-rate of 24·88 in 1904; of 17·73 in 1903. The portion of the East ward lying in South East Leeds had a death-rate of 26·43. The rate was higher than the previous year's (22·08). For some purposes this district has been separated into two, the easternmost and less densely populated part, and which for convenience is called Temple View, and the southern and older part which we associate with the name of the Bank. For purposes of baby inspection now going on these parts are being kept separate. The general deaths, however, have not been so distinguished.

The South ward and Central ward parts of the South-East registration district had rates of 28·75 and 29·46 respectively, or combined, of 28·89. The year before the corresponding rates were 28·65, 29·69, and 28·87.

CASES OF NOTIFIABLE DISEASE.

It has been possible with a little calculation for anyone interested to ascertain in most cases the infectious diseases notified in the intercepts from table B, parts 2, 3, 4, 5, and 6. We have, however, collected them for the five years 1900-04, and printed them as a separate table on page 98. The rates per thousand will be found in the table on page 99.

(4) OTHER LOCAL FACTORS.

HOUSE CONDITIONS AND DISEASE.

Table 25 is given as usual. As has been said on several previous occasions, it is the accumulation of this material which makes it valuable rather than the figures for any one year. I hope to deal with the tables thus collected at another opportunity. Those who have read my earlier reports will remember the use made of the earlier and slightly less detailed tables in dealing with measles in recovery and death houses.

TABLE 25.

Shewing case-houses examined on account of certain diseases heard of during 1904, and some of the conditions found as to drainage and closet arrangements.

		1	2	3	4	5	6	7	8	9	10		
		Drains severed.											
		Water-closet.											
		Inside.		Outside.		T.W.C.		M. or P.					
		F.V.	not F.V.	def.	not	def.	not	def.	not	def.	not.		
		def.	not	def.	not	def.	not	def.	not	def.	not.		
Through	...	...	1	...	...	...	6	...	...	...	2		
Back-to-back	...	...	2	...	...	...	20	...	2	...	...	Smallpox	
Through	...	1	150	...	14	2	128	...	16	...	14		
Back-to-back	...	...	62	...	...	4	426	...	122	...	25	Scarlet fever	
Through	...	5	20	...	...	19	40	...	2	...	5		
Back-to-back	...	6	10	1	1	20	85	6	35	...	5	Diphtheria	
Through	...	...	...	...	...	...	...	...	1	...	...
Back-to-back	...	...	...	...	...	...	3	...	4	...	...	Membranous croup	
Through	...	...	...	...	...	...	2	...	...	...	1		
Back-to-back	...	...	...	2	...	...	2	...	1	...	...	"Croup"	
Through	...	...	...	...	...	...	...	...	2	...	...
Back-to-back	...	...	...	...	...	...	3	...	6	...	...	Typhus fever	
Through	...	3	13	...	...	8	30	...	6	...	2		
Back-to-back	...	3	10	...	...	21	47	4	40	3	...	Typhoid fever	
Through	...	...	...	...	...	...	...	...	...	...	...
Back-to-back	...	...	...	...	...	...	1	...	...	...	...	Continued fever	
Through	...	...	23	...	1	...	47	...	7	...	5		
Back-to-back	...	1	19	...	...	...	102	...	27	...	7	Erysipelas	
Through	...	...	3	...	...	1	...	...	...	...	...
Back-to-back	...	...	1	...	...	2	5	1	6	1	...	Puerperal fever...	
Through	...	...	9	...	...	1	19	...	10	...	2		
Back-to-back	...	...	13	...	1	...	89	...	68	...	5	Measles : death-houses	
Through	...	...	5	...	...	...	2	...	4	...	1		
Back-to-back	...	...	1	...	...	...	12	...	7	...	...	Measles : recovery houses	
Through	...	...	...	...	...	...	...	...	...	...	...
Back-to-back	...	...	...	...	...	...	...	...	2	...	...	Measles : recoveries in death-houses	
Through	...	...	13	...	2	...	28	...	17	...	4		
Back-to-back	...	...	20	...	2	...	133	...	97	...	3	Diarrhoea	
Through	...	1	29	...	1	1	43	...	5	...	9		
Back-to-back	...	1	18	...	2	...	113	...	43	...	11	Phthisis...	
Through	...	1	8	...	...	...	33	5	8	...	3		
Back-to-back	...	...	15	1	1	...	150	...	116	...	6	Phthisis : recovery houses	
Through	...	...	6	...	...	...	26	...	9	...	5		
Back-to-back	...	...	12	...	...	1	109	1	52	...	8	Broncho-pneumonia	
Through	...	...	17	...	...	...	31	...	8	1	6		
Back-to-back	...	...	7	...	...	...	89	...	40	...	2	Pneumonia	
Through	...	...	...	...	...	...	...	...	...	...	...
Back-to-back	...	...	...	...	...	...	2	...	...	...	...	Pleuro-pneumonia	
Through	...	...	1	...	...	...	...	...	...	...	...
Back-to-back	...	...	1	...	...	...	3	...	2	...	...	Pleurisy...	
Through	...	...	1	...	...	...	5	...	...	...	...
Back-to-back	...	...	1	...	...	2	2	...	2	...	...	Laryngitis	
Through	...	...	1	...	...	...	5	...	1	...	2		
Back-to-back	...	...	1	...	...	...	6	...	3	...	2	Influenza	
Through	...	11	300	...	18	32	445	5	96	1	61		
Back-to-back	...	11	193	2	9	50	1402	12	675	4	74		
Both	...	22	493	2	27	82	1847	17	771	5	135		

TABLE 25.—Continued.

		1	2	3	4	5	6	7	8	9	10	11	Cases.		Total deaths in City.
		Drains not severed.													
		Water-closet.										No drain	Alive.	Dead.	
		Inside.				Outside.		T.W.C.		M. or P.					
		F.V.	not F.V.												
		def.	not	def.	not	def.	not	def.	not	def.	not				
Through	...	...	4	...	...	...	2	...	...	...	...	...	15	...	2
Back-to-back	...	...	...	...	...	...	4	...	5	...	...	...	33	...	
Through	...	...	10	...	2	...	26	...	5	...	6	1	375	...	59
Back-to-back	...	...	5	...	1	1	141	2	69	...	15	...	873	...	
Through	...	4	4	...	...	4	2	4	...	3	2	...	113	1	40
Back-to-back	...	...	...	...	...	12	18	12	14	1	2	...	224	4	
Through	...	...	...	...	...	...	...	...	...	...	...	...	1	...	10
Back-to-back	...	...	...	...	...	2	1	1	2	...	...	...	11	2	
Through	...	...	...	...	...	...	...	...	...	...	...	...	1	2	10
Back-to-back	...	...	...	...	...	1	1	1	2	...	...	1	7	4	
Through	...	...	...	...	...	...	...	...	...	...	...	...	2	...	3
Back-to-back	...	...	...	...	...	...	...	1	6	...	...	...	16	...	
Through	...	...	...	1	1	6	2	...	1	1	1	...	75	...	47
Back-to-back	...	...	...	...	...	16	8	13	12	3	...	1	178	3	
Through	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Back-to-back	...	...	...	...	...	...	...	...	...	...	...	...	1	...	
Through	...	1	2	...	...	...	6	...	6	...	4	...	102	...	9
Back-to-back	...	...	1	...	...	...	22	...	18	...	2	...	199	...	
Through	...	...	...	...	...	...	...	...	...	...	...	...	4	...	11
Back-to-back	...	...	...	...	...	1	2	...	2	...	...	...	18	3	
Through	...	...	2	...	...	...	4	...	7	...	1	1	...	56	344
Back-to-back	...	...	1	...	...	...	51	1	44	...	7	2	...	282	
Through	...	...	...	...	...	...	...	...	...	...	...	...	12	...	...
Back-to-back	...	...	...	...	...	...	4	...	1	...	...	...	25	...	
Through	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Back-to-back	...	...	...	...	...	...	...	...	...	...	...	...	2	...	
Through	...	...	...	...	...	1	9	...	7	...	2	...	...	83	451
Back-to-back	...	...	...	...	...	...	50	1	52	1	5	1	...	365	
Through	...	...	2	...	1	...	9	...	3	...	2	...	...	106	626
Back-to-back	...	...	1	...	...	...	33	...	30	...	6	1	...	259	
Through	...	2	...	...	1	1	8	...	5	...	...	...	75	...	...
Back-to-back	...	1	1	...	...	1	85	...	65	...	5	2	449	...	
Through	...	...	1	...	...	1	2	...	6	...	...	...	...	56	341
Back-to-back	...	...	...	...	...	...	53	3	35	...	6	...	...	280	
Through	...	...	2	...	...	...	6	...	4	...	1	1	...	77	317
Back-to-back	...	...	1	...	...	...	30	...	41	...	7	1	...	218	
Through	...	...	1	...	...	...	...	...	...	...	...	...	...	1	5
Back-to-back	...	...	...	...	...	...	1	...	1	...	...	...	...	4	
Through	...	...	...	...	...	...	...	...	...	...	...	...	...	1	11
Back-to-back	...	...	...	...	...	...	1	...	...	...	...	...	...	7	
Through	...	...	...	...	...	...	...	...	1	...	...	...	...	7	17
Back-to-back	...	...	...	...	...	1	...	...	1	...	1	...	...	10	
Through	...	...	...	...	...	1	1	...	...	...	...	...	...	11	32
Back-to-back	...	...	...	...	...	...	1	...	4	...	2	...	...	19	
Through	...	7	28	1	5	14	77	4	45	4	19	3	775	401	...
Back-to-back	...	1	10	...	1	35	506	35	404	5	58	9	2036	1460	...
Both	...	8	38	1	6	49	583	39	449	9	77	12	2811	1861	2335

TABLE 27.

Infectious diseases reported in intercepts 1900 to 1904, per thousand of the population estimated to the middle of 1902.

		Small-pox.	Scarlet fever.	Diphtheria.	Mem. Group.	Croup.	Typhoid fever.	Typhus fever.	Continued fever.	Puerperal fever.	Erysipelas.	Other diseases.
HOLBECK	...	0.29	5.73	2.63	0.04	0.03	0.91	...	0.01	0.03	0.84	0.47
		0.11	6.93	2.64	...	...	0.94	...	...	0.11	1.10	0.50
HUNSLET	...	0.17	5.90	2.81	0.04	0.02	0.87	...	...	0.05	0.49	0.70
		0.21	4.70	1.83	0.01	0.02	1.60	...	...	0.12	0.90	0.48
		0.16	3.20	1.07	0.02	0.04	0.93	...	...	0.02	0.76	0.74
		1.15	2.27	1.69	...	0.04	1.73	...	...	0.08	1.03	0.78
SOUTH-EAST LEEDS	...	1.53	1.68	0.46	...	...	0.61	...	...	...	0.46	0.92
		0.50	3.24	0.61	0.01	0.06	1.15	0.05	...	0.06	0.87	0.50
		...	2.14	...	...	...	...	...	...	...	...	...
OSMONDTHORPE	...	...	8.03	0.86	0.06	...	0.72	...	...	0.20	0.43	0.75
CHAPELTOWN ... (part of)	...	0.32	4.85	0.99	0.03	...	1.00	...	...	0.02	0.61	0.31
		0.15	4.25	1.29	0.05	0.09	0.88	...	0.02	0.08	1.32	0.71
NORTH LEEDS	...	0.39	4.09	0.92	0.02	0.04	1.33	0.07	...	0.05	0.70	0.84
		0.50	2.90	1.28	0.05	0.05	1.03	0.05	...	0.05	0.80	0.53
		...	4.65	...	...	...	0.78	...	...	...	1.55	...
		0.19	4.28	1.39	0.04	0.05	0.96	...	...	0.05	0.82	0.26
		0.14	4.67	2.15	0.06	0.04	0.53	...	...	0.01	0.85	0.39
WORTLEY	...	0.27	5.53	1.48	0.04	...	0.49	...	...	0.07	0.83	0.25
		0.13	3.14	0.67	...	...	0.63	...	...	0.09	0.76	0.04
		0.09	3.73	1.39	0.05	0.01	0.66	...	...	0.03	0.79	0.19
		0.09	5.74	0.52	...	...	1.04	...	...	0.05	0.47	0.33
BRAMLEY	...	0.08	5.23	1.71	0.08	...	0.60	...	0.02	0.02	0.80	0.32
		...	4.10	1.40	0.02	...	0.33	...	...	0.05	0.33	0.25
		...	3.82	1.91	0.16	...	0.32	...	...	0.16	0.32	...
KIRKSTALL	...	...	...	...	...	...	...	...	...	...	...	...
		...	4.38	1.02	...	...	0.29	...	...	...	0.58	0.22
		...	3.93	2.21	0.07	0.02	0.74	0.03	0.01	0.06	0.81	0.37
CHAPELTOWN ... (part of)	...	0.35	3.83	3.02	0.05	0.01	0.82	...	0.01	0.06	0.85	0.70
		0.14	4.07	2.70	...	...	0.87	...	0.03	0.03	2.20	0.58
		0.32	3.93	1.85	0.12	...	0.95	...	...	0.08	1.01	0.50
		0.26	4.43	1.74	0.04	0.03	0.92	0.01	0.00	0.05	0.82	0.49
CITY ...	...	...	...	...	...	...	...	...	...	...	...	...

As striking off the completed report has been somewhat delayed, I take the opportunity of inserting here a table presented to the Sanitary Committee on October 12th, 1905.

NINE LARGE TOWNS.

The following are the death-rates for the nine largest towns during the municipal year (52 weeks) ended 30th September, 1905.

Leeds ...	...	...	...	15·5
London ...	...	...	...	15·7
Edinburgh ...	...	...	...	16·2
Birmingham ...	...	...	...	16·9
Sheffield ...	...	...	...	17·6
Glasgow ...	...	...	...	18·3
Manchester ...	...	...	...	19·1
Liverpool ...	...	...	...	20·0
Dublin ...	...	...	...	21·9

PART IV.—ADMINISTRATIVE WORK.

CHANGES IN STAFF.

Divisionals.—One change was made in the divisional inspectors. Mr. Edwin Carratt, whose name has been mentioned to you on several occasions and who had been with us since 1891, first as laboratory clerk, then as assistant inspector, as works' inspector, and more recently as divisional inspector, left in October to take up his appointment as chief inspector for Longton in Staffordshire.

Mr. James Coupe, who has served the Corporation well since 1893, first as a district inspector in Bramley, and more recently as works' inspector in the No. III. division, was transferred to No. II. as divisional inspector.

Both these inspectors hold the certificate of the Sanitary Institute.

Works' inspectors.—Amongst the works' inspectors the following changes have been made:—Mr. Haigh, who was mentioned specially in the report for 1901, was transferred from the works' inspectorship in No. II. to the corresponding office in No. III., that being the division in which he had spent most of his time as a district inspector, and a district which he therefore knew well. His place as works' inspector in No. II. was supplied by Mr. Craven, the inspector for the North Ward. Mr. Cartlidge, who had been with us from March, 1902, and drainage inspector in No. IV. division from July, 1903, left us in May, 1904, to become chief inspector to the Knaresborough Urban District Council. Mr. George F. Marshall, who at that time had charge of the Headingley Ward (less Burley), taking the oversight of new work as well as the ordinary inspection, was made works' inspector for No. IV. division, less the Kirkstall and Headingley portions of the Headingley Ward, the works' inspection of which is still taken by the ward inspector.

District inspectors.—The following changes have taken place amongst the ward inspectors:—In No. I. division Mr. Craven, as already mentioned, was appointed to be works' inspector in No. II. His place was taken by Mr. Gilby, previously since August, 1902, in the North East ward. The North East ward was therefore inspected during the year first by Mr. Gilby till October, then by Mr. Wilkinson, who was transferred from Burley and remained in charge of that ward the rest of the year.

In No. II. division Mr. McCaragher was still nominally inspector in the South ward, though he had not been able to take active duty for some considerable time. In February, 1903, Mr. Charles Firth had been appointed a probationer under the superintendence of Mr. Carratt, and placed in charge of this ward. He showed himself so efficient that a year later he was made inspector for the ward, and, in April, 1904, he succeeded Mr. Spetch in East Hunslet. He has himself since left us to become Nuisance Inspector to the Borough of Ossett (March, 1905). Mr. Spetch, just mentioned, had been an assistant inspector since May, 1899, and during the whole of his stay with us he was in the same ward (East Hunslet). He was a Leeds man, and before coming to us had been a warp dresser. He had a great idea of becoming a Sanitary Inspector, and had been before the Committee for an appointment previously. He took the certificate of the Sanitary Institute in 1898, and in May the following year came on our staff. He was an energetic and capable inspector, and looked after his ward well. He left us in April, 1904, for the appointment of Chief Nuisance Inspector for Sutton-in-Ashfield, an urban sanitary district in Nottinghamshire. His place was filled as already said by Mr. Firth from the South ward, the vacancy in the South ward being taken by Mr. Wm. R. Swainston, at that time a probationer who had been studying his work for a few weeks under Mr. Sharp's staff in the Armley, New Wortley, and West wards. Later he did work in Burley and

Headingley. Mr. Swainston was however an old servant of the Corporation. He came to us as a weighman at Beckett Street, he was for six years Mr. Darley's coachman, and saw a good deal of the scavenging work in that capacity, acquiring also a good knowledge of the town and its tips. For five years he was a foreman scavenger, and at the time that he became a probationer he was earning 32/- a week. He took the diploma of the Sanitary Institute in June, 1903, and was so anxious to become an inspector that he sacrificed 2/- a week of his wages to take the position of probational inspector in October, 1903. Though he was doing ward work part of that time there was not a declared vacancy among the assistant inspectors for a year later, when he was made a ward inspector.

In October Mr. Mortimer Roberts, who had been inspector in the Holbeck ward since April, 1901, was transferred to Burley, which has been regarded for some years as a separate ward, his place being temporarily filled by Mr. Parker, who had been a probationer since May, 1904, latterly under the tutelage of Mr. Franklin in the North-West ward.

In No. III. division, Mr. Herbert Abson left us on March 12th for Southwark to take up his appointment. He has since, we learn, been appointed as inspector of fruit and vegetables at the Wharves in that Metropolitan Borough.

Mr. Abson had come to us in July, 1902, with the certificate of the Sanitary Institute for Nuisance Inspectors, dated 1900, the Inspector of Meat and other Foods certificate, 1901, and the conjoint Sanitary Inspectors' Board certificate, 1902. Originally a joiner and builder's draughtsman, he had taken elementary and advanced certificates in building construction and other distinctions. With the exception of a short training in Bramley he was in the West ward the whole of the time he was with us. To the vacancy thus caused Mr. W. H. T. Bentley, a probationer, was appointed in March, 1904, as

inspector. Mr. Bentley, who was brought up as a butcher, had certificates in chemistry, plumbing, and building construction as well as the Sanitary Institute certificates for inspectors (June, 1902), and for meat and foods (June, 1903). He was appointed a probationer in June, 1903, was with Craven in North ward for some time, then *locum tenens* first for Gilby in North-East, then for Ellis in Mill Hill, and later was told off to assist the workshops' inspector. Mr. Bentley remained in the West Ward from March to July. On Mr. Petty's death he was withdrawn to assist Mr. Marsden as meat inspector. Later one of the probationers, Mr. J. W. Medley, appointed in April, 1904, was told off to this district (West ward) under the supervision of Mr. Sharp. He has since January, 1905, been made ward inspector. Mr. Medley was a registered plumber (1901), took the certificate in elementary building construction the same year, and that of the Sanitary Institute as a nuisance inspector in 1903. As a probationer he first worked under Mr. Craven in the North ward and then had temporary charge of part of the East ward.

In division IV. the old Headingley Ward had been, as already mentioned, reduced in size by the subtraction of Burley. The remainder of the ward, comprising Headingley and Kirkstall, being somewhat remote from the centre of the town and also less populous than some of the other divisions was held by Mr. George F. Marshall, he taking in addition to the ordinary inspector's work the position of works' inspector in his own district, thus relieving the work of the works' inspector of number IV. in what would otherwise have been a large and somewhat unwieldy district. When Mr. Marshall was himself made works' inspector for number IV. division, his place in Headingley (less Burley) with the same duties, was taken by Mr. Ernest Standish. Mr. Standish had come to us in 1901 with the certificate of the Sanitary Institute of the same year. He had been a candidate for the position of shorthand clerk when Mr. Sparks was appointed. He had had some practical

training in the office of a sanitary engineer and builder, where he had been for four years. He had also been for two years with a firm of pharmaceutical chemists. From November, 1901 to May, 1904, he had charge along with the Jewish inspector of the Brunswick and Central wards, the two dividing the population between them to some extent according to creed. As he had shown aptitude with regard to such drainage matters as came before him, he was appointed to the lesser Headingley ward with the added duties in regard to works, a position which is looked upon as a good training for a works' inspector.

The Burley section of the Headingley ward which had been separated from it soon after the census, has had several changes. For the first time in 1901 it was associated with Mill Hill, and was under the care of Mr. James Marshall, who left us to go to Farnworth in Lancashire. For a time it returned to the care of the Headingley inspector and then in March, 1902, it was taken charge of by Mr. Cartlidge. During part of that year, however, Mr. Cartlidge was told off to assist Mr. Carter in the examination of houses let-in-lodging and common lodging houses on account of small-pox. He remained, however, nominally in charge of the ward until he was made drainage inspector in No. IV. division in July, 1903. His place in August was then taken by Mr. Wilkinson, at that time a probationer doing temporary work in Burley during Mr. Cartlidge's engagement in lodging house work. Mr. Wilkinson has remained in nominal charge of the district ever since, although he also during some part of his incumbency was told off to assist Mr. Carter, and has permanently been appointed to that work since the beginning of the present year. The Burley district, though a populous one, is fairly compact and did not suffer from the occasional transfer of work in this way. It was, however, thought better to relieve Mr. Wilkinson entirely of his work in Burley, and Mr. Mortimer Roberts was transferred from Holbeck as already said. Mr. Wilkinson for a time was, as we have seen, occupied in the

North-East ward for a short period. It has been mentioned that Mr. Standish was transferred from the Brunswick and Central wards to Headingley. His place was occupied for the time being by Probationer Grunwell. This man was an old servant of the Corporation, having been clerk and weighman at the Armley Road destructor, and also for a time foreman at the Cleansing Department—four years altogether in the Corporation service. He had taken the Sanitary Institute certificate in 1903, attended a class in building construction, and had been promised a post as a probationer when a vacancy should occur. This opportunity came in April, 1904. He was put on to work with Mr. Standish, and made such good progress during the month that when the change already mentioned took place he was thought competent to continue the work at any rate for the time being. He has, since January, 1905, been made ward inspector.

Other inspectors.—On July 16th, 1904, rather suddenly we lost by death our senior meat inspector. Mr. William Petty, who had been a butcher and cattle dealer's manager, came to us in July, 1891, as co-ordinate inspector along with Mr. J. W. Coates. He became senior inspector when Coates left us in 1897. On Mr. Petty's death arrangements for carrying on the work were temporarily made by the appointment of Mr. Bentley, a young butcher, whose qualifications are mentioned above, to assist Mr. Marsden, the junior meat inspector, and he has done good work since that time.

Women inspectors.—No fewer than four of our inspectors have left us during the year. Miss Stampa, probationer, had left us at the end of her six months probation, in December, 1903. She had been very useful to us temporarily as an inspector, as she had been an experienced teacher. Miss Stuart unfortunately developed a very serious illness at the close of the previous year, and although we were anxious that she should return to us, it was found impossible for her to do so.

In April Miss Burrows, who had been with us as an inspector from March, 1902, left us to take the position of woman sanitary inspector in Southwark. Miss Burrows, who had been three years a nurse in our Leeds General Infirmary as well as at the Oxford Eye Hospital, came here with the certificates of the National Health Society and the Sanitary Inspectors' Examination Board. She was exceedingly useful to us in working out the inspection of houses and health conditions where children in South-East Leeds had died under two years of age, and we felt her departure as a distinct loss.

Miss Turner, who had been with us from May, 1902, first as probationer and three months later as an inspector, also left us. Miss Turner possessed many certificates from Edinburgh University, from the Royal Drawing Society, as well as the diploma of the National Health Society and the certificate of the Sanitary Inspectors' Examination Board. She had thrown herself thoroughly into her work in Leeds, and had specially taken an interest in women's workshops. She was familiar with all the duties of a nuisance inspector, was energetic and tactful, and her reports were lucid and accurate.

Towards the close of the year Miss Hunter sent in her resignation. Miss Hunter, who had previously been with us as a pupil, came to us in December, 1903, as an inspector with the certificate of the Sanitary Institute. She was exceedingly useful to us in school work, in which she seemed to take a very special interest. She, of course, like others visited workshops and did house-to-house work. But it is chiefly in her reports in infectious cases in girls' and infants' schools and in the sanitary conditions found that she has left her impression in Leeds.

During the year Miss L. H. Pearson and Miss F. A. Smith were promoted from probationers to be inspectors.

Miss Reinherz, who was in possession of the certificate of the Sanitary Inspectors' Examination Board, besides other

TABLE I.
Table of Ward Inspectors' Work. Year 1904.

		Quarters.				City Total 1904.
		I.	II.	III.	IV.	
HOUSE INSPECTION.						
1.	Houses and premises completely examined on account of Houses and premises examined only as to Number of houses wholly or partly examined Total number of above houses where sanitary defects were found	1080	1099	1350	1117	4646
2.		129	260	212	222	823
3.		1586	1868	1601	1915	6970
4.		48	52	74	25	199
5.		251	77	117	408	853
6.		440	472	445	456	1813
7.	Number of houses wholly or partly examined	3534	3828	3799	4143	15304
8.		1230	1283	1402	1519	5434
9.	Sanitary defects found in above houses	1711	1740	1778	1991	7220
10.		183	192	184	203	762
11.	Houses dirty { overcrowded damp or dilapidated with defective eave-gutters or fall pipes	53	89	93	61	296
12.		221	211	203	156	791
13.		349	323	250	344	1266
14.		908	764	677	1027	3376
15.	Nuisances found in { above or other houses:—	15	13	1	8	37
16.		2	..	..	2	4
17.		13	6	5	4	28
18.		998	694	829	1022	3543
19.	" with dirty closets	379	342	312	396	1429
20.		435	430	433	444	1742
21.	" with other nuisances	821	744	740	969	3274
22.		4377	3808	3727	4636	16548
23.	Total nuisances found in houses	4141	3784	3783	4626	16334
24.		316	294	333	234	1177
25.	No. of houses in which above nuisances were found	56	79	101	88	324
26.		266	161	278	253	958
27.	Street gullies stopped	5015	4342	4439	5211	19007
28.		17	37	25	27	100
OTHER WORK DONE.						
29.	Additional visits paid to houses for { Infective disease Nuisances found Completion of Reports Other causes..	1648	3026	6114	3645	14433
30.		2491	2224	2212	2809	9736
31.		379	128	157	226	890
32.		2254	1861	3796	2233	10144
OTHER WORK DONE (continued).						
33.	Special examinations of drains by tests Defects found by ditto Appointments Notices and letters served Dwelling houses unfit for human habitation closed Dwelling houses rendered fit for human habitation Houses cleansed Overcrowded houses dealt with Defective spouting, &c., repaired New middens privies built Old middens privies repaired Do. rebuilt Privies converted into trough water closets Do. do. ordinary water closets Water closets erected New dry ashpits or tubs New trough water closets built Paill closets converted into water closets Trough closets altered into water closets Closets cleansed (lime-washed, &c.) Drains in course of reconstruction " of reconstruction " inspected when connection made to sewer Disconnections of house drains effected Cesspools filled up Public or private wells abolished Houses supplied with town's water Trough and water closets repaired Other house nuisances remedied Total houses for which above work done Houses in which all defects found have been remedied Street gullies cleansed Offensive accumulations removed Pollutions of river or stream remedied Other non-domestic nuisances removed Additional visits paid to inspect work in progress Total nuisances abated	2945	2687	2118	2514	10264
34.		1093	935	801	1002	3831
37.		352	401	308	245	1306
38.		20	21	45	7	93
39.		..	1	..	5	6
40.		3	1	4	..	8
41.		386	152	138	148	824
42.		29	34	51	32	146
43.		142	128	167	180	677
44.		2	..	..	..	..
45.		..	..	..	..	..
46.		..	..	..	..	..
47.		225	390	347	249	1211
48.		25	22	40	19	106
49.		179	298	317	222	1016
50.		4	..	..	..	..
51.		..	6	3	1	10
52.	506	307	334	350	1497	
53.	404	533	533	238	1708	
54.	557	566	590	642	2361	
55.	66	115	106	47	334	
56.	925	1190	993	944	4052	
57.	..	1	1	1	3	
58.	..	2	3	1	6	
59.	..	9	..	..	14	
60.	192	184	210	351	937	
61.	1021	1284	1020	1271	4596	
62.	3140	3123	3241	3352	12856	
63.	2409	2412	2678	2901	10400	
64.	290	291	325	123	1020	
65.	21	44	55	58	178	
66.	22	..	..	..	..
67.	115	86	122	118	441	
68.	3003	3080	2914	2228	11230	
69.	4096	4481	4130	4079	16786	

certificates, had been a year at the Manchester Children's Hospital and $4\frac{1}{2}$ years at the London Hospital, came as a probationer in March, 1904, and six months later was made an inspector.

Miss Orange and Miss Bhose came to us in the autumn of 1904 as probationers, and since the beginning of the present year they have been appointed to the vacant places.

Summary of changes.—It will thus be seen that of assistant inspectors we lost four ladies during the year, of district inspectors two, of works' inspectors and divisional inspectors one each, besides our senior meat inspector, Mr. Petty. The vacancies have all been filled by promotion of members already on our staff either as assistant inspectors or probationers, with the exception of the last. The Corporation have resolved to appoint a veterinary surgeon as chief inspector of meat, and to hand over to him the duties at present exercised by a private practitioner in the town of visiting and examining the udders of all the milch cattle.

WARD INSPECTION.

To some extent relief from the struggle with infectious disease is shown in the increased number of house inspections. The total number of houses examined either completely or incompletely, but so far systematically, rose from 12,291 in 1903 to 15,304, an increase of 3,013. The increase was greatest amongst the houses systematically examined, that is lines 1, 2 and 3 in tables I. and II. where the rise was from 8,813 to 12,439, an increase of 3,626. The number of these houses in the larger group, in which defects were found, was 5,434 against 3,955 last year, and the number of sanitary defects detected in these houses was 7,220 against 5,269 the year before. The drains tested were 10,264, revealing 3,831 defects against 6,858, showing 2,483 defects last year. The total nuisances discovered were 19,007 and those abated

City Total.	Mill Hill.	Central (North of Lady Lane).	North.	N. East.	East.	Division I.	South.	East Huslet.	West Huslet.	Holbeck.	Division II.	WARDS.												West.	New Worley.	Armley and Worley.	Bramley.	Division III.	Head- ley (part).	Burley.	N. West.	Brunswick.		Central. (North of Lady Lane).		Division IV.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

This table includes work done by four Works Inspectors and Yiddish Inspector.

16,786, in both cases greatly in excess of the number discovered and dealt with the previous year. The number of extra visits paid on account of infectious disease, nuisances found and other causes, amounted to 35,203 against 65,453 last year. The meaning of this is that the systematic work, as distinguished from casual work, was resuming its natural sway. Thirty-five thousand is a larger number of these extra visits than were paid in any of the four years preceding 1903, the effects of the smallpox outbreak and the epidemic diseases prevalent at the beginning of the year, still showing themselves in this way. To some extent the necessity of revisiting houses where middens existed to secure details for report to the Committee involved a good deal of this additional visiting work.

During the year 1,211 privies were turned into water closets, and 106 fresh water closets erected, a total of 1,317, as against 1,508 in 1903. The average of the four years 1899-1902 had been, as you will remember, 1,851. The struggle with the last few is of course more difficult.

New drains and drains in the course of re-construction to the number of 4,069 were visited, and their construction watched by our inspectors. This is a larger number than in the preceding year, but a smaller number than in any other year since 1899. There is always a difficulty about these enumerations, as some inspectors will put two visits to the same drain down as two drains, which of course is incorrect.

Womens' work in wards.—In table 11 b will be found a record of 716 houses examined in a systematic manner by the women inspectors as part of the house-to-house work, 80 in the Brunswick, 516 in the East, and 120 in the South ward. In addition, in the East ward 1 house was completely examined on account of alleged nuisance, 2 houses partially examined as to occupants, and 1 as to drainage. Some other work and its results of a more casual nature has been included in this table.

TABLE IIb.

House-to-house work in Leeds by women inspectors. Year 1904.

		Brunswick Ward.	East Ward.	South Ward.	Total.			Brunswick Ward.	East Ward.	South Ward.	Total.
HOUSE INSPECTION.						OTHER WORK DONE (continued).					
1. Houses and premises completely examined on account of	Infected disease	..	..	..	..	33. Special examinations of drains by tests	..	..	..	..	..
2. Houses and premises examined only as to	Alleged nuisances	..	..	..	716	34. Defects found by ditto	..	..	..	..	..
3. Number of houses wholly or partly examined	House-to-house work	80	516	120	716	37. Appointments	..	1	..	..	1
4. Total number of above houses where sanitary defects were found	Occupants	..	2	..	2	38. Notices and letters served	..	8	..	..	8
5. Sanitary defects found in above houses	Buildings and offices	..	..	..	1	39. Dwelling houses unfit for human habitation closed	..	..	..	..	..
6. NUISANCES, &c.	Drainage	80	520	120	720	40. Dwelling houses rendered fit for human habitation	..	..	..	..	..
7. Houses dirty	..	..	92	18	110	41. Houses cleansed	..	..	..	..	..
8. overcrowded	..	..	103	26	129	42. Overcrowded houses dealt with	..	..	..	..	..
9. damp or dilapidated	..	..	..	..	..	43. Defective spouting, &c., repaired	..	..	..	..	..
10. with defective eave-gutters or fall pipes	..	2	102	10	114	44. New midden privies built	..	..	..	..	..
11. badly drained	..	5	12	2	19	45. Old midden privies repaired	..	..	..	..	..
12. without sink drain	..	22	30	17	69	46. Do. rebuilt	..	..	..	..	..
13. badly lighted	..	14	13	..	27	47. Privies converted into ordinary water closets	..	..	..	..	..
14. badly ventilated	..	..	4	8	12	48. Do. do. ordinary water closets	..	..	..	..	..
15. with defective or insufficient closet accommodation	..	..	5	4	9	49. Water closets erected	..	..	..	..	..
16. with dirty closets	..	..	..	..	..	50. New dry ashpits or tubs	..	..	..	..	..
17. with drains, &c., temporarily stopped	..	14	26	6	46	51. New trough water closets built	..	..	..	..	..
18. with other nuisances	..	9	110	11	130	52. Pail closets converted into water closets	..	..	..	..	..
19. Total nuisances found in houses	..	2	5	2	9	53. Trough closets altered into water closets	..	..	..	..	..
20. No. of houses in which above nuisances were found	..	..	7	..	..	54. Closets cleansed (lime-washed, &c.)	..	..	..	..	..
21. Street gullies stopped	..	68	314	76	458	55. Drains in course of construction inspected	..	..	..	..	..
22. Offensive accumulations	..	33	189	44	266	56. " of reconstruction	..	..	..	..	..
23. Other outside nuisances	..	..	12	..	12	57. " inspected when connection made to sewer	..	..	..	..	..
24. Total nuisances found	..	..	29	22	29	58. Disconnections of house drains effected	..	..	..	..	..
25. Complaints unfounded	..	68	355	98	521	59. Cesspools filled up	..	..	..	..	..
OTHER WORK DONE.						60. Public or private wells abolished	..	..	..	..	..
26. Additional visits paid to houses for	Infected Disease	..	8	1	9	61. Houses supplied with town's water	..	..	..	..	..
27. Nuisances found	Nuisances found	..	324	49	373	62. Trough and water closets repaired	..	..	..	..	..
28. Completion of reports	Completion of reports	..	46	..	46	63. Other house nuisances remedied	..	..	..	..	..
29. Other uses	Other uses	..	81	15	96	64. Total houses for which above work done	..	..	..	..	..
						65. Houses in which all defects found have been remedied	..	..	..	..	..
						66. Street gullies cleansed	..	..	..	..	..
						67. Offensive accumulations removed	..	..	..	..	..
						68. Pollutions of river or streams remedied	..	..	..	..	..
						69. Other non-domestic nuisances removed	..	..	..	..	..
						70. Additional visits paid to inspect work in progress	..	..	..	..	..
						71. Total nuisances abated	..	..	..	..	..

This table includes only house-to-house work. Other work in these and other wards done by the women inspectors is given elsewhere, see table Va., page 128 and text pp. 126-132.

Examinations of Midwives' Houses by women inspectors in the several Wards.

[illegible]

In addition to this work the ladies also completely examined 118 houses in different wards of the city on account of their being occupied by persons acting as midwives. This work will be found in table 11 c. The houses in which defects were found were 9, and the defects 26, of which 22 were removed.

These and the preceding should of course be added to the 19,007 and 16,786 found and abated by the ward inspectors, making these numbers 19,555 and 16,989. The usual details as to the kind of nuisance are given in the tables

INSPECTION OF WORKPLACES.

Bakehouses.—We raised the number of bakehouses on our lists from 372 in 1903 to 856. This was brought about by a special inspection of every ward to ascertain the existence of underground bakehouses, and the 856 bakehouses visited during the year include 666 domestic bakehouses above ground, and 58 domestic bakehouses underground. As mentioned in the report for last year notice was sent to all the underground bakehouses upon our lists during 1903 of the effect of the new Factory Act. From information conveyed to us by the factory inspectors, the Bakers' Association, and others, we found that there must be a considerable number of underground bakehouses not on our original list, in consequence of which the special inspection just mentioned was instituted. Bakehouses are, as formerly, inspected by the ordinary inspectors, and domestic bakehouses, not being workshops, had not ordinarily received any special attention from them. The new Act, however, as to underground bakehouses makes no distinction between domestic bakehouses and workshop bakehouses, consequently we found there had actually been in use during 1903, 140 underground bakehouses, nearly half as many again as those upon our list, and to the occupiers of which where they had not themselves applied to us we had sent notice.

TABLE III.

Shewing the number of drains or sources of pollution diverted from the River Aire and its tributaries and connected to the town sewers.

DATE.	Mills, factory, house drains, stables, and pigstyes.	Water closets.	Privies.	Trade pollu- tions.	Total.
Previous to 2nd Jan., 1904	5,806	492	233	78	6,609
During the 52 weeks end- ed 31st Dec., 1904...	34	2	...	...	36
Totals ...	5,840	494	233	78	6,645

To these 856 bakehouses 2,029 visits were made by the ward inspectors, exclusive of the visits mentioned elsewhere by Mr. Lonsdale or Mr. Ferguson. I give as usual the visits in each ward.

In the Central ward in the part which was visited by the Jewish inspector along with the inspector sharing with him the care of the Brunswick ward, and in the part south of Lady Lane which has been for convenience under the charge of the inspector for Mill Hill ward, altogether 137 visits were paid to bakehouses; 95 to 27 bakehouses above ground, 42 to 10 bakehouses, the floor of which was three feet below the street. In 15 of the 27 above ground the persons employed beyond members of the family were 37. In the 10 below ground strangers to the number of 6 were employed in 4 of them. In this ward 2 new overground bakehouses were established during the year, and the use of 7 underground ones discontinued. Mr. Lonsdale made 24, and Mr. Ferguson 34 bakehouse visits in this ward, chiefly in regard to applications for certificate or alterations of structure.

In the North ward 106 visits were paid, 96 to 49 overground bakehouses. Three new overground bakehouses were established during the year, one was discontinued. In 13, 25 persons were employed beyond the members of the family, and in 36, only members of the family worked. Ten visits were paid to underground bakehouses, two women worked in one of those remaining. Mr. Lonsdale made 9, and Mr. Ferguson 20 further visits for purposes already mentioned.

In the North-East ward 16 bakehouses were on our list at the end of 1903. We increased that number to 32 during the year. To 28 above ground 38 visits were made. In 8 of these bakehouses there were 11 employees. Under ground there were 4 bakehouses at the end of the year, 2 having been discontinued. Eight visits were made to these. All four were domestic. Mr. Lonsdale made 3, and Mr. Ferguson 5 further visits.

East ward.—At the end of 1903 we had 15 bakehouses on our list, 13 above ground, and 2 below. At the end of 1904 we had 28 above ground, 2 below ground. Five new overground were added during the year, 1 discontinued, and 58 visits were paid. In 3 of these bakehouses there were respectively 4, 1, and 3 employees beyond members of the family. Six visits were made to the 2 underground bakehouses, both of which were of the domestic variety, by the ward inspector. Mr. Lonsdale paid 6 further bakehouse visits in this ward.

In the South ward at the end of 1903 our ward list contained only 13 bakehouses. At the end of 1904 we had 60 overground upon our list, 1 had been discontinued; to these 60, 240 visits were paid, in 3 of them only were outside persons employed, 1 in one, 1 in another, 2 in a third. Of underground there were 7 (1 was discontinued during the year) and 42 visits were paid. In 4 there were altogether 8 employees,

all women, 3 in one, 3 in a second, 1 in a third, and 1 in a fourth. Mr. Lonsdale paid 3, Mr. Ferguson 13 bakehouse visits in this ward.

In East Hunslet our number of overground bakehouses was increased from 11 to 88, including 7 new ones. The visits paid were 230. All these bakehouses were of a domestic character. At the end of 1903 we knew of 6 underground bakehouses which were reduced to 2 by the end of 1904, one of the two having been put upon the register, and plans having been approved for the other. Four had been discontinued. The ward inspector paid 18 visits. There were 2 employees in each of these two remaining underground bakehouses. Mr. Lonsdale's visits were 4, Mr. Ferguson's, 7, in addition to those of the ward inspectors.

West Hunslet. At the end of 1903 there were 35 overground bakehouses on our list, at the end of 1904, 66. To these 216 visits were paid. In 5 only of the 66 were outsiders employed—4 in one, 2 in a second, 3 in a third, 2 in a fourth, and 2 in a fifth. The ward inspector also paid 12 visits to 11 underground bakehouses, 5 of which were discontinued during the year. Mr. Lonsdale made 3, Mr. Ferguson 7 bakehouse visits.

In Holbeck 186 visits were made during the year to 106 overground bakehouses, of which 6 were new ones, but 2 have been discontinued. Of underground bakehouses we knew of 10. In 1904, 6 were discontinued, leaving 4 at the end of the year. To these ten, 20 visits were paid. In only one was an outsider employed. Amongst those above ground outsiders were employed in 11. In one there were 5 men, in two others in each 3, in a fourth 2. In a fifth bakehouse there were 3 women employed, in a sixth 2, and in five others 1 each. Mr. Ferguson paid 3 visits to the underground bakehouses in this ward. We had only 13 all told on our list in 1903.

In Mill Hill during 1904, 68 visits were paid to 15 bakehouses above ground, 2 of which were new and 1 of which had been discontinued. To 8 below ground, 3 of which have been discontinued, 21 visits were paid. In 11 of the 15 and in all of the 5, persons were employed, making a total of 28 in the former and 14 in the latter. Mr. Lonsdale made 5, Mr. Ferguson 8 visits in addition.

In the West ward 75 visits were paid to bakehouses, 63 to 47 above ground, of which 10 were new, 12 to 11 underground, of which 8 have been discontinued. In 9 of those above ground 16 persons were employed beyond members of the family. In those below ground none. Mr. Lonsdale's visits 2, Mr. Ferguson's 11 additional. Our list in 1903 numbered only 16.

In the North-west ward we had only on our list 25 bakehouses at the end of 1903. We raised the number to 66 in 1904, including 1 new one, but omitting 3 which have been discontinued. To these 90 visits have been paid. In only 4 were persons employed not members of the family; three in two of the 57 above ground, and 4 in two of the 9 below ground. One of the former kind and two of the latter had been discontinued during the year. Seventy visits were made by the ward inspector to those above, and 20 to those below ground. Mr. Ferguson paid the latter 19 visits.

In Brunswick ward we had 21 bakehouses on our 1903 list. In 1904 we had 45. Outsiders were employed to the number of 5 in four bakehouses above ground, and 3 in one underground. Seventy-nine visits were paid by the ward inspector to those above ground, of which there were 37 at the end of the year, 2 having been discontinued and 17 to underground bakehouses, of which there were 8 at the end of the year, 5 having been discontinued. Mr. Lonsdale made 2, Mr. Ferguson 13 further visits.

In Armley and Wortley we had 37 bakehouses on our list in 1903, 29 above and 8 below ground. At the end of 1904 by the addition of 7 new ones, those above ground were brought up to 36, and to these 56 visits were paid. In 6 of the 36, outsiders were employed to the number of 12. Twelve visits were paid to the 8 bakehouses below ground, all of which were of the domestic variety. The record of bakehouse work by the ward inspector has been kept perhaps better in this ward than in any other part of the town. In addition to his 68 visits, 5 were made by Mr. Lonsdale and 2 by Mr. Ferguson.

In 1903 the New Wortley inspector had paid 40 visits to 11 bakehouses. In 1904 he paid 75 visits to 56 above ground, of which 4 were new, and 12 to 4 underground bakehouses which were discontinued during the year. In 3 of the bakehouses above ground 6 persons in all were employed, in those below ground none,—the bakehouses in this district having been nearly all domestic. Mr. Lonsdale and Mr. Ferguson each made 1 bakehouse visit in the ward.

In Bramley 62 visits had been paid to 12 bakehouses in 1903, one new and one unoccupied. The visits were 61 in 1904—51 to 13 above ground, of which 3 were new, and 10 to 2 underground. One person each was employed in two of the former, and 1 woman in one of the latter. Only 3 of the 15 bakehouses were workshops.

In Headingley there were 38 bakehouses visited in 1903, 26 in Burley, 12 in the rest of the ward. The number was raised to 72 in 1904, 60 in Burley, 12 in the remainder of the ward. Amongst the 55 above ground in Burley 3 were discontinued. During the year 105 visits were paid, and 17 outsiders were found to be employed in 11 of the 55. To the 5 underground bakehouses, including 1 not previously known, 22 visits were paid, and in 2 of them were found employees not of the family, two in one and one in the other, all women.

In the rest of Headingley the number of bakehouses in 1903 and 1904 was the same. Nineteen visits were paid; two to the 2 underground, seventeen to the 10 above ground. Four outsiders were employed in 3 bakehouses—1 person in one of the undergrounds, and 3 persons in two of the above grounds. Mr. Lonsdale paid 2 visits in Burley, 5 in the rest of the ward; Mr. Ferguson 17 and 13.

Workshops.—The tables IV. and V. which have been given in previous reports are continued, and, in addition, IVa. is printed for the first time. The form is that suggested by the chief Factory Inspector. Although we have kept in our own books, and in other portions of the report, a distinction between *inspections* and *visits*, in table IV a they have been added together in the column headed “Inspections.” This has been done chiefly because it is found that many nuisance inspectors in other towns, with whose work ours may come into comparison, do not keep up the distinction between complete inspections of a workshop and supplementary visits. As will be seen from other tables we have done so elsewhere, but the 7,487 inspections in the first part of table IV a include the extra visits.

In table IV., which includes some of the work of the women inspectors, it will be seen that the visits paid to workshops already on the register were 1,489, against 1,106 in 1903. It will also be noticed that both the male and the female employees found at the time of the visit are increased; the total increase of those employed at the time of our visits being upwards of 2,000. The number of premises found clean had increased considerably in proportion, and the number of closets found clean had also increased.

Table V., which also contains work by the women inspectors, deals with new inspections—that is to say inspections of workshops not previously visited. In this group there was a falling off, the number being 192 against 282. The number

of those found with the drainage entirely cut off was 48%, against 62% the previous year. The number in which the drainage was not cut off was 23%, against 20% the previous year, and in those where there was no drainage at all the percentage was 29, against 18 last year. On the whole the sanitary condition of the new workshops were less favourable than those examined the previous year. It will, of course, be understood that this was the condition at the time of the first visit.

TABLE IV.

Shewing the sanitary conditions at time of visit of workshops on register and occupied, during the 52 weeks ended December 31st, 1904.

DATE. 1904.	Visits to workshops.	EMPLOYEES AT TIME OF VISIT.			VENTILA- TION.		CONDITION OF PREMISES.				Workshops found closed.
		male.	female.	total.	good.	defect- ive.	rooms.		closets.		
							clean.	dirty.	clean.	dirty.	
4 weeks ended Jan. 30	69	323	432	755	63	6	66	3	56	13	46
4 weeks ended Feb. 27	211	1,083	669	1,752	199	12	155	56	168	43	31
5 weeks ended Apl. 2	220	990	1,080	2,070	211	9	168	52	166	54	8
4 weeks ended ,, 30	119	160	702	862	111	8	113	6	104	15	13
4 weeks ended May 28	129	142	555	697	128	1	121	8	117	12	2
5 weeks ended July 2	155	288	533	821	148	7	145	10	145	10	6
4 weeks ended ,, 30	70	195	208	403	66	4	64	6	58	12	5
5 weeks ended Sept. 3	37	180	115	295	36	1	33	4	30	7	22
4 weeks ended Oct. 1	215	1,245	1,274	2,519	206	9	197	18	163	52	6
4 weeks ended ,, 29	104	501	381	882	101	3	90	14	90	14	2
5 weeks ended Dec. 3	86	495	611	1,106	83	3	78	8	77	9	3
5 weeks ended ,, 31	74	444	411	855	73	1	69	5	59	15	10
Totals ...	1,489	6,046	6,971	13,017	1425	64	1299	190	1233	256	154

TABLE IVa.
Factories, Workshops, Laundries, Workplaces, and Homework.

1.—INSPECTION.

Including Visits and Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries.)	549	106	...
Workshops (Including Workshop Laundries.)	4,008	220	..
Workplaces	477	24	...
Homeworkers' Premises	2,453	96	...
Total	7,487	446	...

2.—DEFECTS FOUND.				
Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts:—*</i>				
Want of cleanliness... ..	745	715	...	...
Want of ventilation... ..	70	66	...	...
Overcrowding	14	14	...	...
Want of drainage of floors	2	2	...	...
Other nuisances	239	204	...	...
Sanitary accom- { insufficient	51	40	...	...
modation. { unsuitable or defective	218	184	...	...
Sec. 22 in force. { not separate for sexes... ..	85	82	...	...
<i>Offences under the Factory and Workshop Act:</i>				
Illegal occupation of underground bakehouse (S. 101)	140	81	...	...
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)	4	3	...	...
Failure as regards lists of outworkers (S. 107)	118	118	...	...
Giving out work to be { unwholesome (S. 108)	...	...	...	...
done in premises { infected (S. 110) ... ..	...	...	...	..
which are				
Allowing wearing apparel to be made in premises infected by scarlet fever or smallpox (S. 109) ... ..	...	...	...	...
Other offences ... ..	...	...	...	...
Total	1,686	1,509	...	...

* Including those specified in Sections 2, 3, 7, and 8, of the Factory Act as remediable under the Public Health Acts.

3.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspectors of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	47
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5).	47
Notified by H.M. Inspector ...	...
Reports (of action taken) sent to H.M. Inspectors ...	31
Other ...	...
Underground Bakehouses (S. 101) :—	
In use during 1903	140
Certificates granted { in 1903	...
{ in 1904	23
In use at the end of 1904	82
Homework :—	
<i>List of Outworkers</i> (S. 107) :—	
Lists received	361
Addresses of outworkers { forwarded to other Authorities...	1,100
{ received from other Authorities...	...
	3
	4
<i>Homework in unwholesome or infected premises</i> :—	
Notices prohibiting homework in unwholesome premises (S. 108)	...
Cases of infectious disease notified in homeworkers' premises	18
Orders prohibiting homework in infected premises (S. 110)	...
Workshops on the Register (S. 131) at the end of 1904	1,452
(Including 132 workshop bakehouses, not including 724 domestic bakehouses).	
Total number of workshops on Register	1,452

Other work.—The senior workshops inspector has made 558 visits of one kind and another not contained in either table IV. or V. to factories and workshops. They and the work done in consequence of them are contained in table Vb. A large number of visits were paid to underground bakehouses to verify the carrying out of the alterations which were promised, and to make inquiries where other and belated applications were received. Mr. Ferguson, my laboratory clerk, made also some 172 visits to the underground bakehouses, some with Mr. Lonsdale, some with me, and some alone.

It is convenient here to separate the work of women inspectors, although much of it is included in that of ordinary workshop inspection just treated of. The visiting of home worker (table V a) is entirely theirs.

WOMEN INSPECTORS.

Infectious disease.—On account of puerperal fever 25 houses were completely examined and 75 further visits paid; 16 visits were paid to nurses and midwives who were connected with the cases, and 8 nurses visited the disinfecting station for the purpose of being personally disinfected.

This number does not include the relations and neighbours who nursed the patients, and whose clothing was sent from the house where the illness occurred to be disinfected at the station.

There were 1,116 visits paid in consequence of measles. In some cases disinfection was carried out by the sanitary department, and in nearly all others by the parents of the patients.

In a special investigation 17 visits were paid to houses where typhoid fever had existed.

On account of small-pox 49 visits were made to factories, 17 to other workplaces, and 44 to schools; 224 visits were paid to contacts at home.

Two inspections were made of houses where erysipelas had occurred, and 3 further visits were made.

One house was inspected where a case of phthisis was notified, and 10 other visits made.

On account of other infectious disease there were 40 inspections made in factories, 16 in workplaces, and 4 in houses where the persons suffering from such illnesses were employed, and 17 visits were made to houses of employers.

In the girls' and infants' departments of elementary schools 298 inspections were made on account of infectious illness, not including small-pox. To the homes of absentees 532 visits were paid, and 216 other visits were made in connection with this branch of the work.

TABLE V.

Shewing workshops not previously visited to which visits have been paid during the year, and the sanitary arrangements at time of visit.

DATE. 1904.	Workshops added to register.	DESCRIPTION OF DRAINAGE.			SITUATION OF CLOSETS.				Workshops found closed.
		cut off.	not cut off.	none.	inside.		outside.		
					w.c. soil-pipe carried up.	w.c. soil-pipe not car- ried up.	Water Closets.	Privies.	
4 weeks ended Jan. 30	9	5	1	3	5	...	4	...	...
4 weeks ended Feb. 27	12	6	2	4	4	1	6	1	...
5 weeks ended April 2	20	8	5	7	9	1	9	1	...
4 weeks ended ,, 30	23	10	8	5	13	...	9	1	1
4 weeks ended May 28	18	11	3	4	5	2	11	...	5
5 weeks ended July 2	27	14	4	9	7	...	19	1	14
4 weeks ended ,, 30	15	7	6	2	4	...	11	...	6
5 weeks ended Sept. 3	19	9	6	4	8	...	9	2	...
4 weeks ended Oct. 1	9	5	2	2	1	1	7	...	2
4 weeks ended ,, 29	13	7	3	3	7	...	6	...	3
5 weeks ended Dec. 3	13	6	2	5	4	2	5	2	...
4 weeks ended ,, 31	14	4	2	8	5	1	8	...	4
Totals	192	92	44	56	72	8	104	8	35

Notices for sanitary defects were given in 24 cases ; only one of these has not yet been complied with.

There were also 8 notices for cleansing and lime-washing, which have all been carried out.

Five inspections were also made of private and secondary schools.

TABLE Va. (Outworkers).

Showing visits paid by Women Inspectors to the houses of Homeworkers during the 52 weeks ended 31st December, 1904.

Wards.	Complete inspections of houses on first visit.	Additional visits about			Total.
		work ordered.	infectious disease.	other causes.	
Central	50	26	...	73	149
North	93	35	1	96	225
North East... ..	93	42	1	49	185
East	50	17	1	43	111
South	22	6	...	20	48
East Hunslet ...	15	14	3	31	63
West Hunslet ...	74	25	2	37	138
Holbeck	58	13	...	77	148
Mill Hill	38	21	1	54	114
West	213	156	7	224	600
North West ...	64	16	...	71	151
Brunswick	67	31	2	76	176
New Wortley ...	42	19	...	40	101
Armley and Wortley	36	7	...	40	83
Bramley	2	...	...	3	5
Headingley ...	44	22	...	21	87
Totals	961	450	18	955	2,384

Outworkers.—Table Va. gives, as in previous years, the work of the women inspectors in visiting at their homes persons employed as outworkers. In addition to the figures given in table Va. as to outworkers, 86 visits were paid to their employers.

Defects found in the houses of home-workers to the number of 69 were, with one exception, remedied, the house in that case having been found closed.

In addition 121 notices for cleansing and limewashing were complied with; 3 are not so yet, and 5 lapsed owing to the occupiers' removal to other houses.

Workplaces.—Sixty-nine shops were visited for the inspection of sanitary accommodation for women employed in them, and 5 return visits were paid.

There were 1,006 inspections made of workshops, and 1,231 return visits were paid. Fifteen notices were given for overcrowding, 38 for defective ventilation, and 129 for other defects. In the case of 7 other notices, 5 lapsed on account of the workshops having been closed, and 2 are still unremedied.

In workshop laundries 23 inspections were made, and 19 return visits paid.

Of domestic laundries there were 46 inspections, and 22 other visits were made. Two notices, to obtain proper drainage of floors, were sent and complied with.

To domestic workshops 194 visits were paid.

In workshops, shops, and laundries, cleansing and limewashing orders to the number of 326 were carried out. In 8 instances the work was not done owing to the closure of the workshops.

Of restaurant kitchens 59 inspections were made, and 7 other visits paid. There were 11 notices sent on account of defects, and all were complied with. There were also 32 limewashing and cleansing orders carried out.

In connection with factories 7 visits were made for the investigation of complaints, and 9 notices were given and complied with; also 18 return visits were paid. In connection

with the cleansing and limewashing of sanitary conveniences appropriated to the use of women, 22 orders were made and the work carried out.

TABLE Vb.

Visits paid by Senior Workshops Inspector on account of

	Factories.	Workshops.
Non-abatements	193	394
Drain inspection	11	15
Disease enquiries	68	24
River pollution	18	13
Complaints	124	208
Measurement of workrooms ... ..	...	22
Wage enquiries	4	1
Bakehouses { underground ... ..	...	35
{ above ground ... ..	...	39
Other causes	85	188
Appointments	55	93
TOTAL	558	1,032

Work done.

	Factories.	Workshops.
Drains tested	29	26
River pollutions abated	6	30
Nuisances abated	114	160

Infant mortality.—During the year in South-east Leeds 406 investigations were made of the deaths of infants under two years of age, and 937 return visits were paid.

In connection with this work 123 notices were given, and in 116 cases were complied with. Of these notices 16 were for overcrowding, 20 for dampness, and 87 for other nuisances.

Limewashing notices to the number of 217 were given; 10 of these have not yet been carried out.

Other work.—There were 81 visits paid to public lavatories for women; 9 notices were sent for sanitary defects found, of which 8 have been complied with.

Limewashing and cleansing notices were issued in 4 cases, and the work has in each case been carried out.

There were 720 house-to-house inspections made. For further particulars see table IIb.

On account of proposed registration under the Midwives' Act of the occupiers, 118 houses were examined, and 363 visits paid. There were 39 other visits paid in connection with this Act. Other particulars of this work are given in table IIc.

On various accounts 180 visits were paid, including 43 complete inspections of houses for complaints, and 29 return visits to these houses.

Fifteen limewashing and cleansing orders were carried out.

Besides the work enumerated 161 visits were paid which do not come under any of the given headings, but were chiefly concerned with the carrying out of notices given.

Eleven visits were also paid to philanthropic institutions for various reasons.

<i>Matters referred.</i> —To	Divisional Inspector	...	145
	„ Building Inspector...	...	49
	„ Workshops' Inspector	...	34
	„ Lodging-house Inspector	...	6
	„ Jewish Inspector	... ..	2
	„ Water Department	...	16
	„ City Engineer	... ..	7
	„ Gas Department	... ..	2

CLEANSING.

House refuse :—For reasons previously given inspections of ashpits by the sanitary inspectors have diminished. In 1902 (53 weeks) they were 45,508, in 1903 (52 weeks) 39,848, in 1904 (52 weeks) 37,939. The requisitions to cleanse have also diminished, and the number of ashpits not cleansed within four days has dropped down to 48. It will be remembered that the new arrangements at the yard by which the ashpits in every ward are under the inspection of the special foremen has rendered the supervision by the sanitary inspectors less necessary than formerly.

It will be also seen from table VII. that the number of midden emptyings has decreased to 21,723. This is a healthy sign. In 1894 the number of wet ashpits, or privy middens, was 10,211, in 1898 they were 8,749. Notwithstanding the continued increase by the building of new ones up to the year 1900, the number had decreased at the end of 1903 to 4,374. It has still further decreased at the present time to 1,852 (May, 1905).

In 1894 the emptyings of these receptacles amounted to 85,882, it fell with the number of receptacles in 1903 to 32,750. It has still further fallen along with the number of receptacles to 21,723 in 1904.

The position in regard to kind of conveniences at the time of writing this report is that of 106,539 houses visited by our scavenging department 76,471 possessed water closets

TABLE VI.

Ashpits inspected by Nuisance Inspectors during the 52 weeks ended 31st December, 1904.

Number of inspections of ashpits	Requisitions to cleanse sent to Cleansing Sub-Department from Sanitary Office.	Number of latter returned as carried out.	Ashpits not cleansed within four days of requisition.	Condition of ashpits generally.
37,939	5,740	5,692	48	Good.

TABLE VII.

Refuse Removal (same period).

No. of midden emptyings.	No. of dry ashpit or tub emptyings.	No. of box or pail emptyings.	Total.	LOADS REMOVED.			Total.
				Night-soil.	Dry ashes.	Rubbish.	
21,723	1069,588	16,342	1107,653	6,816	170,550	4,441	181,807

to the number of 58,706. There are also known to us 1,197 workshops to which there are 3,634 water closets attached, and 23 chapels or schools with 140 water closets. In using the term water closet I refer here to the ordinary properly constructed water closet. There are still, however, in Leeds a large number of trough closet latrines, and 25,278 houses are thus accommodated, the blocks of troughs being 3,356, and the actual closets 11,012, that is not quite 1 closet to every 2 houses. Where factories are accommodated with troughs, these are generally emptied by the employees, but we have 153 workshops on our emptying list with 323 closets of this kind, and 48 chapels or schools with 594, the ordinary elementary schools supplied with trough closets having these attended to by their caretakers and not coming on our list at all. The wet ashpits which used to serve the majority of the houses in Leeds are now the means of accommodation for only 4,654, the ashpits themselves are 1,852, and the closets

3,003, that is about 2 closets for 3 houses. Of workshops attended to by us in this way there are 29 with 30 ashpits and 98 closets. The remaining 136 houses are still supplied with pails for which there are 67. We empty the pails, numbering 248, for 53 workshops and also 68 for 11 schools. It will thus be seen that the wet ashpits and the pails may be regarded as a vanishing quantity. The trough closet is not being done away with to any appreciable extent, but it is not being increased in numbers.

Destructors.—The following work has been done at the four destructors :—

At Armley Road 29,099 loads of rubbish, weighing 24,939·75 tons (0·86 tons or 17·14 cwts. per load) were destroyed during 305 working days. On an average of 12 cells, the work per cell per day would be 6·81 tons. The highest observed temperature was 1,500° Fahr.,* the lowest 450°; average, 1,475°. There were 7,320 observations taken. The firemen employed averaged 13·5 a day, and the amount turned over by each averaged 6·08 tons daily.

At Beckett Street, 20,262 loads of rubbish, weighing 16,828·5 tons (0·83 tons or 16·61 cwts. per load) were destroyed in 8 cells during 304 working days, being an average of 6·92 tons per cell per day. The highest observed temperature was 1,500° Fahr.,* the lowest 1,300°; average 1,497°. There were 7,296 observations taken. The average number of firemen employed was 9·08, and their daily turn over 6·1 tons.

At Kidacre Street, 25,573 loads of rubbish weighing 21,383·5 tons (0·84 tons, or 16·72 cwts. per load) were destroyed in 12 cells during 305 working days, being an average of 5·84 tons per cell per day. There were 7,320 observations of temperature taken, the readings averaged

* The pyrometer does not register above 1,500° Fahr.

1,450° Fahr., the highest was 1,500°,* the lowest 400°. The average number of firemen was 11.92, and they turned over an average of 5.88 tons a man daily.

At Meanwood Road, 18,467 loads of rubbish, weighing 17,116.3 tons (0.93 tons or 18.54 cwt. per load) were destroyed in 8 cells during 304 working days, being an average of 7.04 tons per cell per day. There were 7,296 observations of temperature taken, the readings averaged 1,454° Fahr., the highest was 1,500°,* the lowest 500°. The average number of firemen was 6.26, and they turned over an average of 9.00 tons each daily.

Street cleansing.—This heading is intended to include the work done in the ordinary sweeping and gully cleansing to the paved streets, in the watering of streets and roads, in the cleansing of certain Macadam roads and their gullies and in the removal of snow.

Mr. Darley reports that during 306 working days, 301,548 street cleansings were effected, an average of 985 a day. The length of paved streeting cleansable by us is 250 miles.

The cleansing of gullies was equivalent to cleansing 228,212 or an average of 746 per day; 315,876 charges of disinfectant were applied to gullies. In addition to this, 67,949 loads of street refuse were carted away (222 a day), and 108,630 cleansings of courts and yards were effected, an average of 355 a day.

The number of horse-days for street cleansing was 25,592 and for watering 6,410, being an average of 84 and (during 112 days) 57 horses a day respectively.

During the 112 street watering days 102,344 barrels of water were used.

* The pyrometer does not register above 1,500° Fahr.

The work done in connection with the unpaved streets was equivalent to the cleansing of 27,452 roads and 11,450 gullies; whilst 22,580 loads of refuse were removed, averaging for 303 working days, respectively 91 roads, 38 gullies, and 74 loads per day. The number of horse-days was 5,515, an average of 18 horses a day.

During the 52 weeks, the sub-department removed 16,989 loads of snow at a cost to the city of £1,852.

The cost of street cleansing was £23,336, of street watering, £3,444, and of cleansing highways £7,604, making a total cost (including snow removal) of £36,236.

FOOD INSPECTION.

FOOD, DRUGS, AND DAIRIES.

Cowkeepers.—The number of cowkeepers on the register was reduced from 145 to 136, and the number of milk retailers increased from 497 to 503. The number of visits paid to both had increased from 1,364 to 1,644. This figure is smaller than the one for 1901, which was 2,202. There has to be added, however, to the visits to milkshops, 219 visits to railway stations to procure samples of milk sent in by train. Nine cowkeepers had discontinued business as against 3 last year. Three new cowkeepers were registered as against 1, and 4 new cowsheds built. Cowsheds reconstructed were 6 as against 13, and the farm or milkshops visited on account of infectious disease was 55 as against 62.

Condition of sheds.—On January 26th, at farm No. 782, the sheds were reported as dirty and badly ventilated; the occupier promised to clean the windows the same night, and at Mr. Walker's visit two days later he found the shed in good condition and clean. The existing ventilators were opened, and the stuffing that had been put into the windows removed. This cowkeeper, the condition of whose shed was

TABLE VIII.

Work done in connection with the Cowsheds and Dairies
Order during the 52 weeks ended 31st Dec., 1904.

Cowkeepers on the register	...	...	...	136
Milk-retailers	„	...	...	503
Visits to cowsheds	...	...	...	695
„ milkshops	...	...	...	949
„ railway stations	...	...	...	219
Cowkeepers discontinued business	...	...	...	9
New cowkeepers registered	...	...	...	3
New cowshed built	...	...	...	4
Cowsheds reconstructed and provided with additional light and ventilation	...	...	...	6
Farms or milkshops visited on account of infectious disease	...	...	...	55

commented on in my last report (p. 152) had evidently suffered from a relapse. I am glad to say that he has since discontinued business.

Cowshed at farm No. 41, visited on February 5th, was also commented in my last report, and was still undergoing repair. A new window has been put in, the stands repaired, and the wooden obstructions at the head of the cows removed. The shed is not an ideal one even yet, and the occupier's notions of cleanliness are somewhat primitive.

Shed at farm No. 266, visited February 17th, has been much improved by relaying of the floor and grip in concrete and brick. It has been visited since and found in good order.

On March 2nd, at Headingley (farm No. 146; 23 cows). One of the sheds dirty. Order was at once given to cleanse the walls. On visiting four days afterwards this was found to have been done.

On March 9th, again at Headingley (farm No. 75, 18 cows). Shed found dirty. Mr. Walker reports that this is the first time he has found this cowshed dirty. It turned out that the active partner in the concern was laid up. At a visit a week later the shed was found cleansed.

On March 15th, at farm No. 195 the windows were dirty. This farm is also one generally kept clean. Four days later the windows were all right.

On the same day, at farm No. 94 (8 cows), the veterinary inspector remarked "Requires more ventilation." About a year earlier, as stated in my last report, p. 152, a large portion of the floor above the heads of the cows had been cut away in order to give them more air, and a new window had been put in. The farmer had stopped up the ventilating space by sacks. These have, of course, since been removed. Two visits were paid later, on March 25th and May 11th, but the obstruction to air has not been replaced.

On April 13th, cowshed No. 70, with 4 cows, was found rather dirty. The occupier was written to, and it was cleansed at once. It was again visited on April 20th, and found clean.

May 3rd, farm No. 43, in West Hunslet, with 44 cows, had dirty walls. Personal notice was given, the walls cleansed at once, visits have been paid since on June 15th, October 13th, and December 9th. On each occasion the sheds were clean. At Mr. Bowman's next visit, on December 16th, he reported "In one shed, containing eight cows, the cattle were dirty." In consequence I wrote a very strong letter to the occupier, and since that time the cows have been kept clean.

Also on May 3rd, at farm No. 636, in West Hunslet, a cowshed with three cows was "dirty and badly ventilated." The cowshed was at once cleansed on notice. Since the time of our visit a new window has been put in and the stalls rearranged.

TABLE VIII a.

Veterinary Inspection of Cattle, year ended 31st Dec., 1904.

Date of Inspection.	Register No.	Ward.	Cattle and Condition.			Condition of Shed.
			No. Examined	Udder diseased.	General Condition	
1904.						
Jan. 11.	665	N.	18	...	healthy	Satisfactory.
"	693	N.E.	32	...	"	Do.
"	136	"	14	...	"	Do.
"	220	"	27	...	"	Do.
"	1108	"	30	...	"	Do.
"	66	C.	1	1	...	
Jan. 26.	782	N.E.	5	...	healthy	Dirty and badly ventilated.
"	329	E.	4	1	others healthy.	Satisfactory.
"	198	"	15	...	healthy	Do.
"	90	"	27	...	"	Do.
"	835	S.	8	...	"	Do.
Feb. 5.	41	N.E.	4	...	"	Undergoing repair.
"	478	"	16	...	"	Satisfactory.
"	520	"	15	...	"	Do.
"	101	E.	17	...	"	Do.
"	271	"	8	...	"	Do.
"	172	"	29	...	"	Do.
"	219	"	16	...	"	Do.
"	964	"	17	...	"	Do.
"	19	"	18	...	"	Do.
"	145	"	25	1	others healthy.	Do.
Feb. 12.	295	N.E.	9	...	healthy	Do.
"	45	N.	15	...	"	Do.
"	602	"	14	...	"	Do.
"	343	"	16	...	"	Do.
"	39	"	44	...	"	Do.
Feb. 17.	1153	Outside City.	37	...	"	Do.
"	266	E.H.	3	...	"	Relaying floor and making improvements to shed.
Feb. 19.	4	N.	14	1	others healthy.	Satisfactory.
"	170	"	16	...	healthy	Do.
"	67	"	25	...	"	Do.
"	553	Bnk.	13	...	"	Fairly satisfactory.
"	343	N.	29	...	"	Satisfactory.
"	896	"	9	...	"	Do.
March 2.	550	Hdy.	11	...	1 diseased, others healthy.	In good order.
"	676	"	10	...	healthy	Satisfactory.
"	711	"	18	...	"	Do.
"	384	"	8	...	"	Do.
"	146	"	23	...	"	One dirty, others satisfactory
"	470	"	8	...	"	Satisfactory.
"	912	"	19	...	"	Do.
"	932	"	24	...	"	Do.

TABLE VIII a.—Continued.

Date of Inspection.	Register No.	Ward.	Cattle and Condition.			Condition of Shed.
			No. Examined	Udder diseased.	General Condition	
1904.						
March 9.	196	N.	19	...	healthy	Satisfactory.
"	393	"	18	...	"	Do.
"	522	"	27	2	others healthy.	Do.
"	75	Hdy.	18	...	healthy	Dirty.
"	714	"	8	...	"	Satisfactory.
March 15.	49	N.W.	22	...	"	Do.
"	195	Hdy.	33	...	"	Satisfactory, excepting windows which require cleaning.
"	347	"	8	...	"	Satisfactory.
"	94	"	8	...	"	Requires more ventilation.
"	213	"	5	...	"	Satisfactory.
"	644	"	4	...	"	Do.
"	609	"	15	...	"	Windows want repairing.
"	522	N.	2	2	...	
March 24.	99	Brmy.	23	...	healthy	Satisfactory.
"	89	"	4	...	"	Do.
"	126	"	14	...	"	Do.
"	63	"	7	...	"	Do.
"	360	"	18	...	"	Badly ventilated.
"	243	"	9	...	"	Satisfactory.
"	682	"	20	...	"	Do.
"	822	"	8	...	"	Do.
April 13.	21	"	10	...	"	Fairly clean.
"	337	"	21	1	others healthy.	Clean.
"	227	"	6	...	healthy	Do.
"	110	"	7	...	"	Very clean.
"	462	"	6	...	"	Clean.
"	310	"	7	...	"	Do.
"	322	"	4	...	"	Do.
"	70	"	4	...	"	Rather dirty.
April 22.	159a	E.H.	23	...	"	Clean.
"	159b	"	12	...	"	Do.
"	493	"	33	...	"	Do.
"	378	W.H.	6	...	"	Do.
"	204	E.H.	6	...	"	Do.
"	392	W.H.	18	1	others healthy.	Satisfactory.
May 3.	43	"	44	...	healthy	Floors clean, walls dirty.
"	390	"	6	...	"	Satisfactory.
"	182	"	13	...	"	Clean.
"	636	"	3	...	"	Dirty, badly ventilated.
"	135	"	11	...	"	Clean.
"	64	"	13	...	"	Dirty.
"	150	Hol.	13	...	"	Clean.

TABLE VIII a.—Continued.

Date of Inspection.	Register No.	Ward.	Cattle and Condition.			Condition of Shed.
			No. Examined	Udder diseased.	General Condition	
1904.						
May 3.	392	W. H.	1	1	not tubercle.	
May 16.	164	Hdy.	3	...	healthy	Clean.
"	85	Hol.	8	...	"	Do.
"	359	E.H.	8	...	"	Do.
"	1011	E.	6	...	"	Do.
Nov. 12.	321	Hdy.	12	...	"	Satisfactory.
Nov. 16.	445	A.&W.	5	...	"	Do.
"	246a	"	10	...	"	Do.
"	246b	"	6	1	others healthy	Do.
"	402	"	12	...	healthy	Do.
"	708	"	10	...	"	Do.
"	141	Brmy.	17	...	"	Do.
"	318	"	24	...	"	Do.
"	120	"	21	...	"	Do.
"	128	"	8	...	"	Do.
"	515	"	10	...	"	Do.
Nov. 21.	96	NewW.	6	...	"	Clean and satisfactory.
"	405	W.H.	26	...	"	Do.
"	1014	"	11	...	"	Do.
"	430	Brmy.	16	...	"	Do.
"	332	W.H.	55	...	"	Do.
Nov. 28.	205	A.&W.	3	...	"	Do.
"	801	Brmy.	8	1	others healthy.	Do.
"	909	"	12	2	"	Do.
"	77	"	30	...	healthy	Fairly clean.
"	635	"	9	...	"	Clean and satisfactory.
"	78	"	21	...	"	Do.
"	199	"	14	...	"	Do.
Dec. 6.	127	"	20	...	"	Do.
"	398	"	12	...	"	Do.
"	765	"	12	...	"	Do.
"	92	"	5	...	"	Do.
"	249	"	7	...	"	Do.
"	73	"	21	...	"	Do.
"	400	"	27	...	"	Do. (1 new).
Dec. 16.	43	W.H.	44	...	some dirty.	Clean
"	392	"	16	...	healthy	Floors dirty.
"	390	"	7	...	"	Satisfactory.
"	64	"	12	...	"	Do.
"	182	"	14	...	"	Do.
"	150	Hol.	14	...	"	Do.
Dec. 23.	159a	E.H.	38	...	"	Do.
"	493	"	36	...	"	Do.
"	633	"	19	...	"	Do.
"	204	"	8	...	"	Do.
"	378	W.H.	6	...	"	Do.

On the same day and in the same district, a shed at farm No. 64 (13 cows) was found dirty. Mr. Walker's comment upon this is that one of the sheds was clean, the other had been well swept, but was in want of swilling. Notice was given and this was done. On October 28th and December 9th the shed was clean. This is the shed into which new windows had been introduced as reported last year (page 150).

On December 16th, at farm No. 392, in the same district (16 cows) the floors were found dirty. They were ordered to be cleansed. At the inspector's visit three days later this was found to have been done.

Veterinary inspection of cattle.—This has been continued during the year. Altogether 1,957 examinations of cows have been made, chiefly in regard to the condition of the udder. These involved 130 visits to farms for this purpose. Nine of the farms containing 169 cows on the first and 179 on the second occasion, were visited in the ordinary course twice during the year. In two others the farm was visited again to examine cows, two in one case and one in the other, whose udders had been found to be diseased. There were thus 119 separate farms examined. The details of the several visits are given in Table VIII a. Some of them, however, call for further remarks.

On January 11th a visit was paid to farm No. 66, in the Central ward, to see a cow, one of thirteen examined on that farm, on 26th of November, 1903. The case is mentioned on page 160 of the report for that year. The cow had been re-inspected in the beginning of December, although this visit is not entered on last year's table. The visit on the 11th of January confirmed the previous diagnosis of mammitis, and the udder was found much improved.

Cowshed 329 (East ward). The occupier kept only 4 cows. One of them was fat, but had a diseased udder, which the veterinary surgeon considered was probably tuber-

culosis. She was ready for killing, and the owner promised to inform the inspector when she went to the market. The dairies' inspector called again in about a fortnight, and found that the cow had been sold in our own market, though the notice promised had not been given to us. She is said to have been sent to the Halifax district. The reason alleged by the farmer for not giving us notice was forgetfulness.

On February 5th a visit was paid, amongst others, to cowshed No. 145, in the East ward. Of 25 cows examined, one had a diseased udder. The animal was much emaciated. The cow was out of milk, but the case clearly ought to have been notified to us under our Act. The animal went to the knackers' yard, where she was opened in the presence of Mr. Bowman and Mr. Walker. Nearly every organ was tuberculous and the carcase much emaciated. Mr. Walker has since made repeated visits to this cowshed—on April 11th, June 11th, September 18th, and December 21st, and by his assistant on August 17th. The cattle were apparently all healthy on these occasions.

On February 19th cowshed No. 4, in the North ward, was visited. There were 14 cows. One cow had a hard udder apparently not tuberculous. The cowshed was visited again, and the cattle examined by Mr. Walker or his assistant on March 18th, August 11th, and October 10th.

On March 2nd cowshed No. 550 (Headingley) was visited, and 11 cows were examined including one not giving milk, but carrying a calf. This animal was far gone in tubercle but her udder apparently healthy. She was not with the other cows. We understand that she was afterwards sold, probably at Otley. Subsequent visits were paid by one of our staff on April 11th, June 11th, October 11th, and December 28th.

On March 9th farm 522 was examined. Of 27 cows, two had diseased udders. Mr. Walker and the Veterinary Surgeon visited again on the 15th, and reported that both cows were

still suffering from mammitis. Further visits were paid by Mr. Walker and Mr. Cummings on May 12th, June 14th, and October 12th. This is the same farm mentioned in my last report, page 155. It has had previously a bad record in regard to tuberculosis.

On April 13th, at farm No. 337, one of 21 cows examined was found to be suffering from mammitis. Mr. Walker visited again on June 1st. This animal recovered.

On April 22nd, at farm No. 392 (West Hunslet), 18 cows were examined. One had a suspicious udder; she was visited again by the Veterinary Surgeon on May 3rd, when he reported that the udder was not tuberculous. The animal which was out of milk was afterwards sold at Wakefield market. Further visits were paid to the cattle on May 14th, June 15th, October 13th, and December 9th.

November 16th, at farm No. 246 (Armley and Wortley), there were 16 cows in two sheds, 10 and 6 respectively; in the latter (246 b) one cow had a diseased udder, regarded as mammitis. These sheds had been previously visited five times in the earlier part of the year.

On November 28th, at farm No. 801 (Bramley), eight cows were seen. One had a tuberculous udder. The milk was stopped, and the cow isolated at once. On the 30th the cow's temperature at 9 p.m. was 101.8° Fahr., and tuberculin was injected. At 9 a.m. next morning the temperature was 105.2° ; at 3 p.m. 104.2° . The reaction therefore confirmed the diagnosis of tubercle. The Committee made some compensation in this case for the milk lost during the period of testing. The cow was afterwards sold to be fed for the butcher. Further visits were made to the farm on December 6th and 28th.

On the same day (November 28th) in the same district at farm No. 909, 12 cows were examined. On October 26th this farm had been visited by Mr. Walker and Mr. Bowman together

for the purpose of a veterinary examination of two cows that Mr. Walker at his ordinary inspection had noticed to be suffering from udder disease, namely, a roan cow and a red and white cow. On the 27th Mr. Bowman reported that the roan cow had in his opinion a tuberculous udder, and that the red cow was suffering from mammitis of both hind quarters with discharging abscesses. I authorised their being tested with tuberculin, and on November 1st received a report that the roan cow, whose temperature had been 101.8° at the time of injection, had a temperature of 106° 12 hours later, and 104.2° 18 hours after injection. Mr. Bowman certified the animal as tuberculous and also the udder.

In regard to the red and white cow the temperature at the time of injection was 101.2° , 12 hours later 102.4° , and six hours later again, 103.6° . The certificate was to the effect that the animal was not tuberculous.

On November 28th the report was that the udder in the tuberculous cow was much worse, and the cow in a very poor condition. The tuberculous animal was kept until March 18th, 1905, and at the *post mortem*, udder, liver, lungs, and bowels were found to be tuberculous. Some compensation was paid in November to the farmer on condition that the animal should not be sold without our knowledge. A case of tuberculosis in a cow belonging to this farmer had been reported to us in March, 1903, and some compensation granted for confiscation of the milk.

Bacteriological examination.—Table VIII b. has not been printed before. Since the year 1899 no fewer than 166 samples* of milk have been collected and submitted for bacteriological examination at the Medical School. At first the samples were taken largely from the town, but the long time which elapsed

* Including those in table VIII b. Amongst these the results were positive (tuberculous) in 17, pseudo-tuberculous in 4. Forty samples were sent to the laboratory in 1903, and no report returned. These are excluded from the 166.

TABLE VIII b.

Samples of Milk sent to the Bacteriological Laboratory
for Examination during 1904.

Date.	Where farm is situate.	No. in register.	Result of the test.
1904.			
July 27.	Menston	(530)	Not tuberculous.
"	Burley-in-Wharfedale...	(530)	Do.
Aug. 17.	Dacre Banks	(530)	Do.
"	Birstwith	(530)	Do.
Aug. 25.	Skipton	(530)	Do.
"	Ryleston	(530)	Do.
Sept. 21.	Goldsboro'	(530)	Do.
"	Leeds... ..	39	Do.
Oct. 4.	Skipton	(825)	Do.
"	Hawes	(457)	Do.
Oct. 12.	Guisseley	(831)	Tuberculous.
"	Hambleton	(530)	Not tuberculous.
Oct. 19.	Weeton	(548)	Do.
"	Askrigg	(548)	Do.
Oct. 26.	Leeds... ..	(90)	Do.
"	Do.	(493)	Do.
Nov. 9.	Do.	(321)	Do.
"	Do.	(146)	Do.
"	Guisseley	(530)	Do.
Nov. 16.	Leeds... ..	909	Do.
"	Rawdon	(72)	Tuberculous.
"	Horsforth	(424)	Not tuberculous.
Nov. 23.	Leeds... ..	(77)	Do.
"	Guisseley	(368)	Do.
"	Yeadon	(435)	Do.
Nov. 29.	Guisseley	(579)	Do.
"	Do.	(579)	Do.
"	Leeds... ..	801	Do.
Dec. 7.	Birstwith	(530)	Do.
"	Darley	(530)	Pseudo-tuberculosis.
Dec. 15.	Do.	(530)	Do.
"	Goldsboro'	(530)	Not tuberculous.
"	Pannal	(530)	Do.
"	Birstwith	(530)	Do.
Dec. 21.	Guisseley	(530)	Do.
"	Do.	(530)	Do.

The numbers in brackets refer to the retailers in Leeds to whom the milk was in course of delivery at the time the sample was taken.

between the sending of the sample and the receipt of the certificate led us, at any rate in regards to Leeds milk, to attach more importance to the veterinary examination of the cow, details of which have been given in table VIII a. and the text for the last few years, than to the bacteriological examination of the milk as sold. In consequence in later years the samples submitted for examination have been chiefly those sent into Leeds from the country. During the early part of 1904 the pathological department at the Medical School were unable to deal with our samples. The present table therefore begins with those taken at the latter part of the year.

Eight of these samples were taken from Leeds dairies and 28 from dairies outside the town, the milk being in almost every case taken at the place of delivery. Of the 36 samples taken the presence of tubercle bacilli was detected in two, the bacillus of pseudo-tuberculosis also in two. The two samples where there was distinct evidence of tubercle were taken from farmers in Guiseley and in Rawdon on the 12th of October and the 16th of November. The certificate was not received from the College until 8th December in the former case and 10th January, 1905, in the latter. In the former case Mr. Walker visited at my request on the 9th of December, and made arrangements for the veterinary examination of the cows on the following day. Mr. Bowman accordingly visited on the 10th, examined the udder of every cow and reported that all the cows were healthy, and that none of them had any enlargement of the udder. The farmer, who was perfectly willing to help us in the matter, and received our visit in the most friendly spirit, told Mr. Walker that he had parted with a cow to the butcher some four weeks before our visit. It was, of course, impossible to follow up the condition of that cow. We have no reason to suspect that any other cow had been parted with between the date of our sampling the milk and the date of Mr. Bowman's examination.

The farm at Rawdon, from which the tuberculous milk came into Leeds, was visited by Mr. Walker accompanied by Mr. Bowman, the veterinary surgeon, on the 11th of January, eight weeks after the taking of the sample. The udders of the 16 cows were carefully examined by Mr. Bowman, who reported them all healthy. The sheds were very dirty. Three of them in Mr. Walker's opinion quite unsuitable. The attention of the Medical Officer of Health of the district was drawn to this. A cow from this farm had been sold for slaughter about five weeks before our visit. The purchaser was a butcher in Yeadon. The cow was said to have been giving milk up to the date of her sale, but we understand from the butcher's point of view she was looked upon as a poor specimen. After such a length of time it was scarcely worth while making any attempt to question the butcher. In this case also every facility was given to our inspector for examination.

Two specimens of milk, where evidence was of so called pseudo-tuberculosis, both came from Darley and from the same farm. The specimens were taken from the place of delivery in Leeds on the 7th and 15th of December. The certificates of pseudo-tuberculosis were both returned to me on 15th February, 1905. Mr. Walker, at my request, went to the farm on February 17th. There were only nine cows, and Mr. Walker himself examined the udders, and finding them soft and healthy did not think it necessary to call the Veterinary Surgeon to his aid. The structural condition of the sheds was exceedingly unsatisfactory, and on the receipt of Mr. Walker's report I wrote on February 18th to the Medical Officer of Health of the Pateley Bridge Rural District Council.

It will be evident that in the three cases where the milk was found unwholesome there was no evidence at the farm of any existing cow giving milk of the kind reported upon. The long interval which elapsed between the receipt of the specimen

and the arrival of the report probably in most cases accounts for the fact that the cow, which had been unsatisfactory from the dairyman's point of view, had been got rid of. In fact, it is matter of pretty common knowledge, at least in Leeds, that where a farmer has a cow with any suspicious condition of the udder he is apt to get rid of her, preferring to incur a slight loss at the time rather than to run the risk of our finding the diseased animal upon his premises. To this extent probably we may claim that our special activity in this direction since 1899 has met with its reward. Unfortunately the history of these animals is lost. Their meat probably does not often come into Leeds, they are killed in some country district where inspection is difficult. Our principal grievance is that cow-keepers outside Leeds supply us with milk and are not subject to our periodical visits.

Food and drugs.—In table IX. it will be seen that a total of 706 samples were sent to the City Analyst. In 520 they were certified as genuine, in 186 as adulterated.

In the cases of milk certified as adulterated regard was had to the standard as set up by the Board of Agriculture. It will be remembered that that standard was not the standard suggested by the Committee appointed by the Board to consider the matter, but one considerably lower in fat. The 140 adulterated samples had either a smaller percentage of fat than 3% or a smaller percentage of solids not fat than $8\frac{1}{2}\%$. A large number of the milks contained in the 464 returned as genuine were probably watered. Summonses were taken out in 28 cases of adulterated milk; convictions were obtained in 25, while in three cases the summonses were dismissed or withdrawn.

In No. 295 (table IX a.) the amount of fat certified as removed was 11%—that is to say 11% below the 3% considered as the minimum by the Agricultural Board. The

TABLE IX.

Samples of food sent to the City Analyst for examination during the 52 weeks ended 31st December, 1904.

Article.	Genuine.	Adul- terated.	Total.	Sum- moned.	Con- victed.	Dis- missed or With- drawn.
Milk	464	140	604	28	25	3
Butter	23	18	41	14	10	4
Cheese	4	...	4	..	...	...
Beer	1	14	15	...	...	...
Cream of Tartar	19	10	29	1	...	1
Sugar	7	1	8	...	...	...
Tomato Sauce ... ..	...	2	2	...	...	...
Liquorice Powder	1	...	1	...	...	...
Lard	1	...	1	...	...	...
Coffee ... ..	...	1	1	...	...	...
Total	520	186	706	43	35	8

results of the analysis were: fat 2·65, total solids 11·96, solids not fat (calculated) 9·31. Counsel pleaded very hard that the amount of fat varied in individual cases. The defendant swore positively that he had not done anything to the milk, and the magistrate seems to have believed him.

The sample was taken on delivery at the railway station, and was the mixed milk of about a dozen cows; the contents of the can from which the sample was taken were thoroughly shaken up by a perforated mixer, so that if the milk was genuine there must have been a singular conspiracy on the part of the 12 cows to defraud the public. Their proprietor was, however, made to pay the costs of the summons.

In No. 380 the amount of water added was certified to be $5\frac{1}{2}\%$, and the fat removed $11\frac{1}{2}\%$. A small regiment of persons appeared and gave evidence that they had not put any

TABLE IXa.

Summonses issued during the 52 weeks of 1904 under the Sale of Food and Drugs Acts, 1875, 79 and 99*, for articles other than butter.

No. of sample.	Article.	Percentage of adulteration.	Fines.			Remarks.
			£	s.	d.	
20	Milk ...	9% added water. 4% fat removed	0	10	0	and costs
22	Do. ...	20% added water ...	5	0	0	
44	Do. ...	10% do. ...	1	0	0	
45	Do. ...	12% fat removed ...	1	0	0	
53	Do. ...	14% do. ...	1	0	0	
76	Do. ...	27% added water ...	0	10	0	
98	Do. ...	10% do. ...	2	0	0	
160	Do. ...	14% do. ...	5	0	0	{ withdrawn, Deft. to pay costs and costs
182	Do. ...	16% do. ..	1	0	0	
197	Do. ...	17% do. 8% fat removed	2	0	0	
295	Do. ...	11% fat removed ...	—			
305	Do. ...	9% added water ...	1	0	0	
358a	Do. ...	11% do. ...	5	0	0	
380	Do. ...	5½% do. 11½% fat removed	—			dismissed
386	Do. ...	8½% added water ...	—			{ withdrawn, Deft. to pay costs
395	Do. ...	9½% do. ...	3	0	0	and costs bound over not to sell next six months and costs
402	Do. ...	7½% do. ...	7	0	0	
438	Do. ...	10% do. ..	5	0	0	
489	Do. ...	6½% do. 5½% fat removed	1	0	0	
499	Do. ...	7½% added water ...	2	0	0	
505	Do. ...	10% do. ...	1	0	0	
627	Do. ...	14% fat removed ...	2	0	0	
628	Do. ...	11½% added water ...	—			
629	Do. ...	32% do. ...	2	0	0	
630	Do. ...	10% do. ...	1	0	0	
		£	49	0	0	

* For cases under Margarine Act see table IXb.

TABLE IXb.

Other Summonses taken out under the Margarine Act, 1887, and the Food and Drugs Acts, 1875, 79 and 99, during the 52 weeks ended 31st December, 1904.

No. of sample.	Article.	Percentage of adulteration.	Fines.			Remarks.
			£	s.	d.	
64	Butter ...	75% foreign fat... ..	—	—	—	{ dismissed on invoice. To pay 4/- costs and costs
118	Do. ...	70% do.	2	0	0	
148	Do. ...	67% do.	—	—	—	withdrawn
267	Do. ...	88% do.	40	0	0	
268	Do. ...	86% do.	—	—	—	dismissed
390	Do. ...	8% do.	3	0	0	and costs
507	Do. ...	88% do.	2	0	0	
508	Do. ...	88% do.	0	10	0	and costs
513	Do. ...	88% do.	1	0	0	and costs
543	Do. ...	88% do.	2	0	0	
544	Do. ...	87% do.	1	0	0	
561	Do. ...	86% do.	3	0	0	
633	Do. ...	82% do.	2	0	0	
634	Do. ...	84% do.	—	—	—	dismissed
669	Do. ...	82% do.	—	—	—	dismissed
—	For giving false warranty in writing		10	0	0	and costs
—	Obstructing the Inspector		2	0	0	and costs
			£	68	10 0	

water into the milk or abstracted the cream. As we were unable to produce the man or men who had put in the water or abstracted the cream, and had only the facts to rely upon that the fat was only 2·49% instead of the low minimum of 3% which the Agricultural Board says suggests the removal of fat, and only 8·02% of solids not fat instead of the 8·50 under which the Agricultural Board suggests that the addition of water should be *prima facie* suspected, the case was

dismissed. The milk was taken from a can on delivery, containing some fourteen gallons and representing the mixed milk of perhaps eight cows.

In No. 386 we withdrew the summons, but under more favourable circumstances. The defendant was a retailer who probably quite rightly asserted his innocence in regard to the addition of the $8\frac{1}{2}\%$ of water. In this case the total solids were 10.75% , the fat 3% , leaving 7.75% instead of 8.50% for solids not fat. Clearly this was a milk fairly rich in cream which had been watered down so as to give just 3% of fat. As a specimen of milk from the man supplying the defendant had already been taken and was in the hands of the analyst, the hearing was adjourned. The analysis of the milk from the farmer (438) taken on delivery showed 2.73% of fat, 10.37% of total solids, leaving 7.64% of solids not fat. This was apparently a less rich milk also watered down. The farmer was fined £5. The case against the retailer was withdrawn on payment of costs.

No money penalty was inflicted in the case of sample 628. The vendor was a small retailer; she had purchased milk from another retailer on a larger scale who was fined £2 and costs in the case of sample 627. The retailer was bound over not to sell for the next six months.

Some remarks about the cases where summonses were not taken out will be found later, in connection with table IX c.

The samples of butter taken were 41; 23 genuine and 18 adulterated. Summonses were taken out in 14 cases; convictions secured in 10. No. 64 was dismissed on invoice, but the magistrates felt that the defendant was so much to blame that they made her pay costs. No. 148 was withdrawn owing to an informality.

No. 268 was also dismissed. The Corporation had to pay £5 5s. costs. This was a case heard before the lay magistrates in which our inspector alleged that the margarine was exposed for sale without any label whatever. The vendors swore that the word margarine was affixed to the dish on which the parcel stood, and the magistrates seem to have believed them.

No. 634 was also dismissed. The defendant was a blind man who had been fined £2 shortly before. His daughter, who sold the "butter," alleged that she said to the purchaser that it was margarine. The Stipendary thought it possible that she might have said so, and that the statement had not been heard.

In No. 669 an error was made in serving the summons.

Table IX c. is printed for the first time this year, although the information contained in it has generally been given to the Committee each quarter. It will be noticed that the majority of cases are those in which the nominal adulteration was apparently slight, and there might have been difficulty in getting a conviction. In a few, generally where it was pretty clear that the default was chiefly due to carelessness in not mixing the milk when it was being sold, and therefore giving the first customers more than their proper share of cream, the vendors were personally cautioned by myself as to their mode of conducting their trade, and warned that if any repetition of the offence occurred they would be prosecuted. These remarks apply to milk samples Nos. 34, 54, and 504. In sample 578, taken officially on delivery, it was afterwards ascertained that the retailer had himself removed the upper two or three gallons of milk from the can unknown to our inspector. In samples No. 9, 18, 296, and 450, prosecution ought to have followed had the samples been purchased in the ordinary manner. They were in all four cases, however, samples obtained unofficially for the sake of knowing the

quality of the articles sold. All four were samples handed to us by milk retailers who suspected they were themselves being defrauded by the farmers. Sample No. 9 for instance was brought to us by the milkman. It was returned as containing $11\frac{1}{2}\%$ of added water (fat 2.96% , total solids 10.48%). Sample No. 11 was taken within a week from the farmer who had furnished No. 9, and was pronounced genuine. The fat was 3.43% and the total solids 11.94 .

No. 18 was similarly brought to us by the retailer on the 18th January. On the 23rd a sample (No. 22, table IX a.) was taken officially, 20% of water was certified to have been added, and the farmer was fined £5 and costs.

No. 296 was a sample brought by a milkman. An official sample, No. 305, was taken within a week and found to contain 9% of added water, and a fine of £1 and costs obtained (v. table IX a.).

No. 450 also was a sample handed us by the retailer on the 7th of September. The same afternoon a sample was taken from the farmer (No. 438, table IX a.) who had also supplied the retailer from whom sample 386 had been purchased. A fine of £5 was inflicted by the magistrate.

In No. 43 (butter with 88% foreign fat) there was no prosecution. There would probably have been a conflict of evidence as to labelling, and the Town Clerk advised, in consequence of the dismissal of a similar case, that proceedings should not be taken.

The vendor of unofficial sample, No. 261 (cream of tartar containing lead) was cautioned.

Sample No. 262, purchased unofficially, contained 0.1 per cent. of lead (calculated as Pb.). Within a week a further sample of cream of tartar (No. 272) was purchased officially at the same shop, and as it contained lead in the proportion

TABLE IXc.

Adulterated Samples where no proceedings were taken.

No. of Sample.	Article.	Adulteration.					Remarks.
5	Milk	...	1.5%	water added	...	...	purchased officially
6	Do.	...	3%	do.	...	...	do.
9	Do.	...	11.5%	do.	...	...	unofficial sample
10	Do.	...	4%	do.	...	...	do.
12	Do.	...	2%	do.	...	...	purchased officially
13	Do.	...	2%	do.	...	...	do.
15	Do.	...	3.5%	do.	...	...	do.
18	Do.	...	21%	do.	...	...	unofficial sample (v. No. 22, table IXa.)
21	Do.	...	3%	do.	...	...	purchased officially
23	Do.	...	2%	do.	1.5% fat removed	...	do.
24	Do.	...	2.8%	water added	...	...	do.
31	Do.	...	2%	do.	...	...	do.
32	Do.	...	3.5%	do.	...	...	do.
34	Do.	...	3%	water added, 9% fat removed	...	...	do., cautioned by Dr. Cameron
36	Do.	...	1%	water added	...	...	purchased officially
42	Do.	...	3.1%	do.	...	...	do. (see text)
43	Butter	...	88%	foreign fat	...	...	do. (no prosecution)
54	Milk	...	8%	fat removed	...	...	do., probably from careless distribution. Cautioned by Dr. Cameron
55	Do.	...	3.25%	water added	...	...	purchased officially
57	Do.	...	1%	do.	...	...	do.
58	Do.	...	4%	do.	...	...	do.
59	Do.	...	3%	do.	...	...	do.
63	Do.	...	3.7%	do.	...	...	do.
68	Do.	...	2%	do.	...	...	do.
69	Do.	...	1.5%	do.	...	...	do.
71	Do.	...	4%	do.	2.5% fat removed	...	do.
75	Do.	...	4%	fat removed	...	...	do.
79	Do.	...	5%	water added	...	...	do.
84	Do.	...	4.5%	do.	...	...	do.
94	Do.	...	4.5%	do.	...	...	do.
95	Do.	...	2%	do.	...	...	do.
100	Do.	...	2%	do.	...	...	do.
103	Do.	...	3%	do.	...	...	do.
113	Do.	...	4.5%	do.	...	...	do.
114	Do.	...	2.5%	do.	...	...	do.
116	Do.	...	1.5%	do.	...	...	do.
124	Do.	...	3.5%	do.	2.5% fat removed	...	do.
125	Do.	...	4.5%	do.	...	...	do.
136	Do.	...	6%	do.	...	...	do.
141	Do.	...	2%	do.	2% fat removed	...	do.
142	Do.	...	2%	do.	...	...	do.
143	Do.	...	1.8%	do.	...	...	do.
144	Do.	...	2%	do.	...	...	do.
147	Do.	...	3%	fat removed	...	...	do.
149	Do.	...	2%	water added	...	...	do.
150	Do.	...	2.9%	do.	...	...	do.
157	Do.	...	1%	do.	...	...	do.
158	Do.	...	1.2%	fat removed	...	...	do.
159	Do.	...	4%	water added	...	...	do.
165	Do.	...	3%	do.	...	...	do.
167	Do.	...	4%	do.	...	...	do.
227 ^a	Do.	...	3.5%	do.	3% fat removed	...	do.
236	Do.	...	1%	do.	2.5% do.	...	do.
261	Cream of tartar	...	0.33	grs. of lead per lb.	...	...	unofficial sample
262	Do.	...	7	grs. do.	...	...	do.
263	Beer	...	$\frac{1}{350}$	grs. of arsenic trioxide per gall.	...	...	do.
266	Do.	...	$\frac{1}{250}$	do.	do.	...	do.
269	Do.	...	$\frac{1}{250}$	do.	do.	...	do.
270	Do.	...	$\frac{1}{350}$	do.	do.	...	do.
271	Do.	...	$\frac{1}{300}$	do.	do.	...	do.

TABLE IXc.—Continued.

No. of Sample.	Article.	Adulteration.	Remarks.
275	Cream of tartar	Free from lead	unofficial sample
276	Do. ...	2.24 grs. metallic lead per lb. ...	do.
277	Do. ...	Trace of lead	do.
278	Do. ...	do.	purchased officially
280	Do. ...	do.	do.
281	Do. ...	do.	do.
286	Milk ...	3% fat removed	unofficial sample
296	Do. ...	3% water added, 11% fat removed	do. (v. No. 305, table IXa.)
303	Do. ...	2% do. 4% do.	purchased officially
327	Do. ...	2% do. 1% do.	do.
329	Do. ...	3% water added	do.
336	Do. ...	3% fat removed	do.
339	Do. ...	4% do.	do.
343	Do. ...	4% do.	do.
347	Do. ...	5% do.	do.
359	Do. ...	3.5% do.	do.
361	Do. ...	2% water added	do.
367	Do. ...	4% do.	do.
381	Do. ...	1% do.	do.
384	Do. ...	4% do.	do.
391	Do. ...	2.5% do.	unofficial sample
397	Do. ...	2.5% do.	purchased officially
400	Do. ...	4.5% do.	do.
403	Do. ...	2% do.	do.
410	Do. ...	3.5% fat removed	do.
423	Do. ...	3% water added	do.
424	Do. ...	3% do.	do.
429	Do. ...	5% do.	do.
436	Do. ...	6.5% do.	do.
440	Do. ...	2% do.	do.
444	Do. ...	6% do.	do.
450	Do. ...	11.5% do.	unofficial sample
451	Do. ...	5.5% do.	purchased officially
465	Do. ...	6% fat removed	do.
471	Do. ...	4% do.	do.
484	Do. ...	2% do.	do.
488	Do. ...	3.5% water added	do.
504	Do. ...	41% cream removed	do., carelessness in distribution. Cautioned by Dr. Cameron.
514	Do. ...	5% water added	purchased officially
515	Do. ...	5% do.	do.
516	Do. ...	3% do.	do.
574	Do. ...	4% do.	do.
578	Do. ...	39% fat removed	do.
605	Do. ...	3% do.	do.
608	Do. ...	1.5% water added	do.
610	Do. ...	1% do.	do.
612	Do. ...	1% fat removed	do.
615	Do. ...	1% water added	do.
618	Do. ...	5.5% do.	do.
619	Do. ...	1% do.	do.
631	Do. ...	4% do.	do.
642	Do. ...	1% do.	do.
644	Do. ...	1% do.	do.
654	Do. ...	3.5 do.	do.
676	Do. ...	1% water added	do.
681	Do. ...	6% fat removed	do.
683	Do. ...	3% do.	do.
688	Do. ...	1.5% water added	do.
690	Do. ...	5% do.	do.
697	Do. ...	5% do.	do.
698	Do. ...	14% do.	do.

of 5 grains of the metal to the lb., we prosecuted. The vendor pleaded warranty and was discharged. The wholesale dealers appeared by counsel, who said they had withdrawn the stock. By the advice of the Town Clerk no further proceedings were taken.

In samples Nos. 278, 280, and 281 (cream of tartar), officially taken, there was only a trace of lead.

In Nos. 279, 282, 283, 284, 285, 287, and 288 (cream of tartar) no lead was found.

No. 276 (cream of tartar) was an unofficial sample. The owner was sold up before we could get an official one.

It will be noticed that in table IX c.—adulterated samples where no proceedings were taken—in 99 cases the sample was purchased officially, but the nominal amount of adulteration was small, and no proceedings were taken; in 17 cases the sample was taken unofficially, of these one was free from adulteration, in 10 the adulteration was small, and in 6 there might have been proceedings had the sample been officially taken. The official samples where prosecution occurred scarcely require comment.

Twelve of 41 samples of butter and three of 604 milks were purchased by deputy. Nine of the 12 and two of the three respectively were reported adulterated.

Some interesting experiments have been carried out in Leeds, suggested by those of the Agricultural Department of the Leeds University, to ascertain what amount of variation occurred in mixed milks. The Secretary of the Yorkshire Federation of Dairy Farmers' Associations has a herd of 25 cows, mostly crossbred shorthorns. Two were in calf and seven were being fattened. The cows were milked at 6 a.m. and 3 p.m., and were turned out to water twice a day. In the

morning the water was slightly warmed. The experiment lasted from January 13th to February 8th inclusive—27 days. After each cow was properly stripped, the milk in the can was well mixed and a glass tube dipped into it vertically to the bottom. The top of the tube was then closed with the thumb, the tube withdrawn, and the milk contained in it placed in a separate vessel. Twenty-five average samples of milk from different cows were thus mixed, and half-a-pint of the mixture taken for analysis. In regard to the morning milk, which had the lowest average in regard to fat, the cream (except on one occasion when Mr. Purchon was not able to be present at the collecting of the milk) was always 3 %, the lowest of these analyses being 3 %, all the others above it ranging from 3.04 to 3.76. In the evening milk the average fat was 4.15 %, and the smallest amount on any of the 27 days 3.66. The average solids, not fat, contained in the morning milk was 8.82 ; in the evening 8.66. On two occasions the morning milk fell below 8.50, and on six occasions the evening milk did so. On both occasions on which the morning milk fell below 8.50 in non-fatty solids the total solids were at least 12 %. The total solids were always above 12 % in the evening milk.

Meat and markets.—The inspectors paid 6,403 visits to 100 slaughter-houses. They have also visited the general market, the wholesale meat market, and the cattle market, the shops in the town in which meat, fish, and fruit are sold, and two knacker's yards. Their visits to these number 5,045.

In addition to the articles seized officially, and included in table X, 39,911 lbs. of beef, 6,936 of mutton, 5,474 of veal, 4,098 of pork, and 2,058 of fish, together 58,477 lbs., or 4,177 stones were destroyed by the owners with our consent. What our inspectors describe as foreign offal, to the extent of 271 stones was also destroyed, namely :—25 cases of beasts' kidneys (402 lbs. without cases), 10 of beasts' livers (516 lbs. net.), sheep and pigs plucks (weighing 1,045 lbs.), 1,310 sheep's

kidneys (weighing 160 lbs.), 846 ox tails (weighing 1,269 lbs.), and 28 kegs of tripe (weighing 396 lbs. net). In addition to these were 20 tins of potted meat (80 lbs.), English tripe (320 lbs.), and cheese (224 lbs.), in all $44\frac{1}{2}$ stones. There were also destroyed 336 lbs. of grapes, 1,916 lbs. of dry currants, and 140 lbs. of blackberries, in all 2,392 lbs. or 171 stones.

It will be seen from the table that 1 seizure was made and prosecution followed. In this case, 69 pieces of beef, the property of one of the frozen meat companies were seized one Sunday morning in a shop in Marsh Lane. This meat is not included in the figures given in the text, it weighed 172 lbs. In addition, certain other meat in the shop, not weighed, was allowed to be destroyed by the owners. A fine of £30 and costs was inflicted by the magistrate.

TABLE X.

**Slaughter House and Meat Inspection, 52 weeks ended
31st December, 1904.**

Class of meat seized and des- troyed.	Weight in stones of 14 lb.	No. of seizures.	No. of persons sum- moned.	No. of convic- tions.	Penalties.
Beef... ..	12	1	1	1	£30 and costs.

TABLE XI.
Smoke, 1904 (52 weeks).

Complaints received	...	...	...	...	...	20
Furnaces inspected	...	...	...	...	...	7,408
Observations taken of chimneys (for a period of sixty minutes each)	...	...	...	...	...	1,618
Total number of minutes dense smoke	...	...	...	...	...	2,901
Average minutes duration of dense smoke during each observation of one hour (1 minute 47 seconds)	...	...	...	...	...
Smoke prevention appliances adapted to furnaces	...	...	...	...	...	78
Chimneys newly erected	...	...	...	...	...	6
Furnaces in connection with new chimneys	...	...	...	...	...	11
Notices served upon manufacturers	...	...	...	...	...	12
Do. do. stokers	...	...	...	...	...	28
Persons summoned before the magistrates	...	...	...	...	...	5
Do. convicted	...	...	...	...	...	5
Total amount in fines	...	£4	5s.	od.		
Do. costs	...	£1	0s.	od.		

REMOVAL AND DISINFECTING WORK.

Removals.—In addition to the work shown in tables XII. and XIII., 124 persons were removed, some from their own homes, most of them from our hospital to Gildersome Convalescent Home.

Our staff transferred 328 convalescent patients from the Manston Hall Hospital, Seacroft, to the one at Beckett Street for discharge; carried 30 patients from the hospital at Beckett Street to that at Seacroft. During the reconstruction of the hospitals it was found necessary to transfer 87 of the scarlet fever patients from Manston to the new hospital at Killingbeck erected for small-pox but not yet used. We removed 2 persons from the General Infirmary to their own homes, and carried 228 contacts to the cottages at Manston,

8 to those at Somerset Street or High Street, and 84 to the disinfecting station. We are thus to be credited with 891 removals not counted in the primary removals of infected persons to hospital.

TABLE XII.

Work done by Disinfecting Staff, 1904 (52 weeks).

Houses disinfected	...	...	...	2,509
Rooms disinfected (stripped 156, limewashed 60)				6,872
Beds and mattresses disinfected	...	...		6,749
Articles of bed clothing disinfected	...	...		24,634
Articles of wearing apparel disinfected			...	58,536
Miscellaneous articles disinfected	...	...		17,580

TABLE XIII.

Cases removed to hospital by our own staff.
Classified according to diseases certified.

Small-pox.	Scarlet fever.	Diphtheria.	Typhus fever.	Typhoid fever.	Other diseases.	Total, 1904.
73	849	93	20	157	15	1,207

(52 weeks).

Flushing.—During the 52 weeks of the year, 9 carts, each with 2 attendants, have been employed flushing drains. In this period 64,290 house drains, 37,357 water closets, and 40,500 gullies have been flushed, chiefly on account of illness. The above-mentioned figures include the flushing of drains in connection with 261 schools. In addition to this, 2 men with a horse and cart have been engaged putting an iron solution into tanks connected with the sewers, and in this manner 1,780 gallons of disinfecting solution have been allowed to trickle into certain of the sewers.

TABLE XIV.

Return for the 52 weeks ended 31st December, 1904,
of patients in hospital.

	1 Small-pox.	2 Scarlet fever.	3 Diphtheria.	4 Typhus fever.	5 Enteric, or typhoid fever	6 Other or doubtful cases.	7 Total.
No. in Hospital on Saturday, 2nd January, 1904 ...	1	164	7	...	28	4	204
No. since admitted ...	64	854	85	18	140	103	1,264
No. discharged	56	859	71	15	127	87	1,215
No. died	2	34	6	3	22	7	74
No. remaining in Hospital, 31st December, 1904...	7	125	15	...	19	13	179

CANAL BOATS AND TEMPORARY DWELLINGS.

Under this heading I have said very little about Mr. Carter's work since 1901, although the thoroughness with which he has carried out the examination of lodgings and houses-let-in-lodgings has been mentioned in dealing with the subject of small-pox in my reports for 1902 and 1903. The tables have however been given in the usual way. Mr. Carter, as the older members of the committee are aware, has charge first of the inspection of canal boats, second of the houses-let-in-lodgings, and third of all temporary dwellings such as tents and vans. In addition to this work during the periods when small-pox was present, he has been in the habit of inspecting the common lodging-houses for cases of illness, a work which the police do not consider falls within their duties as the inspectors of common lodging-houses. He has also in connection with common lodging-houses to report upon all new buildings for which a license is sought from the Watch Committee.

Mr. Carter entered on his duties at the end of 1897. It is perhaps interesting therefore to compare the work done in that year and the year before with the work done at the present time. The canal boats registered during the year 1897 were seven, there were 3 transferred to fresh owners and 1 struck off the register, so that on the 1st January, 1898, there were 326 boats upon our register. On the 31st December, 1904, there were 394, and the visits of inspection to wharves and locks had increased from 312 in 1896, and 147 in 1897*, to 1,713 last year, including 432 complete inspections of boats. I believe that the inspection as carried out has met with the full approval of the Local Government Board Officer who visits and examines the books every year. A special report upon canal boats was furnished to you up to the end of the year and forwarded to the Local Government Board.

TABLE XV.**Canal Boats (52 weeks).**

Registered during the year 1904	...	...	...	9
Transferred to fresh owners	...	...	...	7
Struck off register	...	...	...	10
On register, 31st December, 1904	...	...	...	394
Visits of inspection to wharves and locks	...	...	...	1,713
Boats completely inspected	...	...	...	432

Houses-let-in-lodgings.—The number of houses-let-in-lodgings on the register on the 1st January, 1898, was 19, and 9 visits of inspection were made to them during 1897. This, however, was a slight falling off from the numbers of the previous year, when there were 19 on the register and 92 visits of inspection. Mr. Carter's work has increased considerably since then. On the 31st December last year there were 218 houses of this kind upon our register, containing

* The two years are taken in some cases as the usual inspector was invalided for a great part of 1897.

402 rooms. In addition visits to 930 houses containing 1,793 rooms, but not on the register, were paid during the year. In this way the visits to houses of this class totalled 3,661. Fifteen houses, containing 29 rooms, were struck off the register; 15 rooms were found overcrowded; 177 rooms were found dirty, and the bedding was dirty or bad in 15 rooms; 40 houses were dilapidated; 23 had defective drains, the closets were dirty in 14 instances. With the exception of one case where the drainage had not been completed during the year all these faults were remedied.

TABLE XVI.

Houses Let in Lodgings.

	Houses. Rooms.	
Registered during the year; let as furnished		
rooms	0	0
Struck off register	15	29
On register, 31st December, 1904	218	402
Houses let in lodgings visited, but not registered	930	1,793
Visits for registration purposes	0	0
Total visits for additional inspection	3,661	
Nuisances found and abated—		
	Found	Abated.
Overcrowded rooms	15	15
Dirty rooms	177	177
Dirty and bad bedding	15	15
Dilapidated dwellings	40	40
Defective drains	23	22
Dirty closets	14	14
	—	—
Total	284	283

Students' lodgings.—Again, at the request of the University authorities, we have re-examined all the houses in which students are known to live. This has involved a new inspection of 31 houses, containing 157 rooms, drain-testings in 57 cases (showing 26 drainage defects in 16 houses), and the re-testing of the drains of houses examined the previous year to the number of 40, revealing 4 defects in three houses. This testing of the drains in houses previously examined, and in which only a year before the test result had been negative, seems to me of the very greatest importance, and indicates the necessity of a more rapid house-to-house examination of the town than is at all possible under the present circumstances. Mr. Carter's visits to these students' lodgings amounted during the year to 97.

TABLE XVII.

Other work of Temporary Dwellings Inspector.

Visits to common lodging-houses	...	...	...	185
„ „ „ as to small pox				1,900
„ furnished rooms as to small pox	...	...	...	261
„ „ „ typhus	...	...	...	1,010
„ vans	...	...	...	149
„ tents	...	...	...	49
„ cellar dwellings	...	...	...	49
„ „ „ closed	...	...	...	2
„ overcrowded houses	...	...	...	3
„ infectious diseases	...	...	...	1
„ to test drains	...	...	...	31
„ as to other causes	...	...	...	368

University lodging houses—

Houses inspected, 31 ; containing 157 rooms.

Drain testings, 57 (defects found 26, in 16 houses).

Retesting of drains of houses previously examined
(1903) 40 (defects found 4, in 3 houses).

Total visits to these houses 97

Total ... 4,105

Other work.—For ordinary purposes 185 visits were made to common lodging-houses which are under the inspection of the police, and 1,900 visits on account of small-pox. This of course does not mean that there were 1,900 cases of small-pox. To furnished rooms 261 visits were paid on account of small-pox, and 1,010 on account of typhus, some cases admitted to the hospital having shown symptoms suggestive of that disease, and it having been thought necessary to make a careful search for similar cases amongst the houses let-in-lodgings. Mr. Carter also paid 149 visits to vans, 49 to tents, and 51 to cellar dwellings, 2 of which were closed during the year. He made 403 visits for other purposes not already enumerated, including 31 to test drains.

APPENDIX.

TABLE A, Part 2.

Table of populations, registered births, and mortality at certain ages, in the registration sub-districts.

(Public institutions regarded as sub-districts.)

Population estimated to middle of 1904. at each age group.				450,142	11,791	40,545	92,283	90,597	189,347	11,108	14,471	
REGISTRATION SUB-DISTRICTS OF LEEDS CITY.	Population at all ages.		Registered Births.	Mortality from all causes, at subjoined ages.								Death- rate per 1,000 for each district.
	Census 1901	Estimated to middle of 1904.		At all ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25	25 and under 60	60 and under 65	65 and upwards	
Leeds Township—North ..	59,281	59,089	1,783	922	332	165	23	21	209	49	123	15·66
Do. do West ..	84,340	84,588	1,921	1,249	318	198	29	46	304	99	255	14·82
Do. do. South ..	34,299	34,566	1,254	777	288	184	23	32	139	37	74	22·56
Hunslet	69,064	71,870	2,264	1,211	400	237	50	39	230	73	182	16·91
Holbeck	31,572	32,856	1,106	554	193	102	17	29	99	32	82	16·92
Wortley	59,328	61,596	1,656	996	290	144	36	61	219	64	182	16·23
Kirkstall	41,561	44,279	1,069	514	143	68	13	19	113	37	121	11·65
Bramley	17,299	17,805	470	258	64	35	9	11	60	17	62	14·54
Chapeltown	31,845	43,122	930	426	104	56	19	13	103	21	110	9·91
Osmondthorpe .. .	379	371	4	4	..	..	..	..	3	..	1	10·82
Infirmaries .. ..	..	..	..	514	45	49	39	48	249	44	42	..
*Fever Hospitals .. ..	..	..	..	75	4	29	16	8	18	..	..	..
WORKHOUSES {	Leeds ..	..	92	437	23	9	6	9	189	48	153	..
	Hunslet ..	..	..	59	3	3	1	3	21	6	22	..
	Holbeck ..	..	2	32	..	..	..	2	11	7	12	..
	Bramley ..	..	10	68	2	2	4	2	19	8	31	..
For the whole City ..	428,968	450,142	12,561	8,096	2,207	1,281	285	343	1,986	542	1,452	18·05

* Including the deaths of 38 persons at Manston Hospital, and 3 persons at Killingbeck Hospital (outside the city boundary).
Six deaths registered in the Township of Wortley, which occurred at the Consumptive Hospital, Armley, have been allocated to the districts to which the patients formerly belonged.

1904.—FIRST QUARTER.

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended 2nd April, 1904, classified according to cause, age, and the registration sub-districts in which they occurred.

TOWNSHIP &c.	LEEDS.						WORKHOUSES.												Fever Hospitals *	In- firmary, etc.	Osmond- thorpe.	Chapel- town.	Bramley.	Kirkstall.	Holbeck.	Hunslet.	Annual rate per 1,000 pop.	TOTAL Mortality in City.		DEATHS OF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	North.		West.		South E.		Leeds.		Hunslet.		Holbeck.		Bramley.		und. 5	over. 5	und. 5	over. 5										und. 5	over. 5	und. 5	over. 5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Estimated Population— 450,142	59,089	84,588	34,566	71,870	32,856	61,596	44,279	17,805	43,122	371																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

1904.—SECOND QUARTER.

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended 2nd July, 1904, classified according to cause, age, and the registration sub-districts in which they occurred.

TOWNSHIP &c. ..	LEEDS.						Fever Hospitals *	WORKHOUSES.				TOTAL Mortality in City.		Annual rate per 1,000 pop.	DEATHS OF	
	North.		West.		South E.			Leeds.	Hunslet.	Holbeck	Bramley.				Leeds persons occurring outside City.†	Out- siders occurring in City.
	und. 5	ov. 5	und. 5	ov. 5	und. 5	ov. 5						und. 5	ov. 5			
Estimated Population— 450,142	59,089	84,588	34,566	71,870	32,856	61,596	44,279	17,805	43,122	371						
Under and over 5.	und. 5	ov. 5	und. 5	ov. 5	und. 5	ov. 5	und. 5	ov. 5	und. 5	ov. 5	und. 5	ov. 5	und. 5	ov. 5	und. 5	ov. 5
Smallpox	32	1	24	1	25	1	29	1	3	26	4	1	152	8	143	1
Measles	1	..	1	..	..	1	1	..	1	1	1	..	14	2	0.14	..
Scarlatina	..	..	..	..	..	..	..	..	..	..	..	..	4	2	0.05	..
Diphtheria	..	..	1	..	..	1	..	..	..	..	..	..	2	1	0.03	..
Croup (memb.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" undefined	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough	7	2	10	1	4	12	12	4	4	1	3	..	68	4	0.64	..
Typhus	..	1	..	2	..	..	..	..	..	..	..	..	1	5	0.05	..
Enteric ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other or doubtful	2	1	1	1	1	1	1	..	..	..	..	..	6	3	0.08	..
Diarrhoea	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Rheumatic Fever	..	..	..	..	..	..	..	1	..	..	..	..	..	..	0.01	..
Acute & Sub- acute Rheu- matism	1	..	..	1	1	2	..	2	1	1	..	1	10	10	0.09	..
Erysipelas	..	1	..	..	..	..	..	1	..	..	..	..	1	1	0.01	..
Pyæmia	..	..	..	..	..	..	..	..	1	..	..	..	1	2	0.02	..
Puerperal Fever	..	..	..	1	..	..	..	..	1	1	..	..	..	2	0.02	..
Ague ..	17	4	30	10	11	20	10	3	1	3	1	37	8	166	1.55	1
Phthisis	..	..	..	..	..	..	..	..	..	..	..	..	..	174	..	..
Bronchitis	23	16	25	24	19	18	7	4	7	..	2	5	157	136	2.61	1
Pneumonia	14	25	16	22	9	14	14	4	7	..	1	..	1	293	1.33	1
Pleurisy	3	2	28	1	13	17	10	1	1	..	2	21	11	148	3.61	7
Heart Disease	..	..	..	3	4	2	4	2	8	1	..	2	..	57	..	..
Injury, &c. ..	68	54	69	68	50	38	26	10	17	23	6	65	426	546	8.67	10
Total of above causes	45	52	61	75	41	78	24	15	14	44	8	38	438	569	8.98	24
All other causes	219	302	191	275	148	253	128	69	98	4	14	116	864	1115	17.65	43
Total ..	14.9	14.3	22.2	15.4	18.1	16.5	11.6	15.6	9.1	43.3	124	17	66.3	111.2	..	..
Mortality per 1,000 per an.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

* There were eleven deaths at Manston Hospital, and one death at Killingbeck Hospital during this quarter. † No return received during quarter. ¶ English.

1904.—THIRD QUARTER.

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended 1st October, 1904, classified according to cause, age, and the registration sub-districts in which they occurred.

TOWNSHIP &c.	LEEDS.						Fever Hospitals *	WORKHOUSES.						TOTAL Mortality in City.			Annual rate per 1,000 pop.	DEATHS OF	
	North.		West.		South E.			Leeds.		Hunslet.		Holbeck		Bramley.		Leeds persons occurring outside City.†		Out- siders occurring in City.	
	und.	ov.	und.	ov.	und.	ov.		und.	ov.	und.	ov.	und.	ov.	und.	ov.				
Estimated Population— 450,142	59,089	84,588	34,566	71,870	32,856	61,596	44,279	17,805	43,122	371									
Under and over 5.	5	2	27	19	1	3	3	5	2										
Smallpox	5	1	1	2	1	1	1	1	1										
Measles	1	3	1	2	2	1	1	1	1										
Scarlatina	1	1	1	1	1	1	1	1	1										
Diphtheria	1	1	1	1	1	1	1	1	1										
Croup (memb.)	1	1	1	1	1	1	1	1	1										
" undefined	1	1	1	1	1	1	1	1	1										
Whooping Cough	65	3	3	13	4	4	15	10	17										
Typhus	1	1	1	1	1	1	1	1	1										
Enteric	1	1	1	1	1	1	1	1	1										
Other or doubtful	1	1	1	1	1	1	1	1	1										
Diarrhoea	65	3	3	13	4	4	15	10	17										
Cholera	1	1	1	1	1	1	1	1	1										
Rheumatic Fever	1	1	1	1	1	1	1	1	1										
Acute & Sub- acute Rheu- matism	2	1	1	1	1	1	1	1	1										
Erysipelas	1	1	1	1	1	1	1	1	1										
Pyæmia	1	1	1	1	1	1	1	1	1										
Puerperal Fever	1	1	1	2	1	1	1	1	1										
Ague	1	1	1	1	1	1	1	1	1										
Phthisis	1	1	1	1	1	1	1	1	1										
Bronchitis	1	1	1	1	1	1	1	1	1										
Pneumonia	1	1	1	1	1	1	1	1	1										
Pleurisy	1	1	1	1	1	1	1	1	1										
Heart Disease	1	1	1	1	1	1	1	1	1										
Injury, &c.	1	1	1	1	1	1	1	1	1										
Total of above causes	87	36	107	137	48	53	29	26	25										
All other causes	78	39	56	69	29	62	19	9	20										
Total ..	240	306	223	342	134	217	107	69	96										
Mortality per 1,000 per an.	16.3	14.5	25.9	19.1	16.4	14.1	9.7	15.6	8.9										

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended 31st December, 1904, classified according to cause, age, and the registration sub-districts in which they occurred.

* There were seven deaths at Manston Hospital, and two deaths at Killingbeck Hospital during this quarter. † No return received during quarter. ¶ English.
Five deaths registered in the township of Wortley, which occurred at the Consumptive Hospital, Armley, have been allocated to the districts to which the patients formerly belonged.

1905.—FIRST QUARTER.

Table shewing Deaths recorded in the City of Leeds during the thirteen weeks ended 1st April, 1905, classified according to cause, age, and the registration sub-districts in which they occurred.

[illegible]

B. I.

TABLE B, Part I. (SUB-DISTRICTS.)

TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the 52 weeks of 1904, in the Urban Sanitary District of Leeds; classified according to Diseases, Ages, and Localities.

Names of Localities adopted for the purpose of these Statistics.	Population at all ages.		Reg. Births. (d)	Aged under 5, 5 under 15, 15 upwards. (e)	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.										Number of such Cases Removed from their Homes in the several Localities for Treatment in the Isolation Hospitals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	Census, 1901. (b)	Estimated to middle of 1904. (c)			1	2	3	4	Fevers.					Cholera.	Erysipelas.	Other.	Total.	1	2	3	4	5	6	7	8	9	10	11	12	13																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
									Typus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.																		Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Membranous Group.	Diphtheria.	Scarlatina.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
North (H) ..	59,291	59,089	1,875	Under 5, 5 under 15, 15 upwards.	..	14	46	17	38	4	

Notification has been compulsory since the first of May, 1894. The City General Fever Hospital (the old House of Recovery), is situated in the district marked H. Five cases of illness occurred amongst the staff at this hospital, two of enteric fever, and three of diphtheria, all in patients over 15. They are included above as coming from the North district. Non-infectious illnesses of the staff are not counted. The Small-pox Hospital is at Killingbeck outside the town. New wards for general fever cases were opened on the Manston estate in October, 1898. Nine hundred of the 1,211 were admitted there during 1904. Two cases of scarlet fever, admitted to Manston Hospital, and two cases of small-pox, admitted to Killingbeck Hospital, came from outside the city and are not included in this table. Also ten members of the Manston Hospital staff were admitted to Manston for scarlet fever, and one for diphtheria, all over 15. None of these eleven are counted, as they could not be classified under any district of the city. The four cases of scarlet fever, mentioned in note to table B for 1903, reported in 1903, but hospitalised in 1904, are not included above.

B. 2.

TABLE B, Part 2. (Wards).

Names of Localities adopted for the purpose of these Statistics.	Population at all ages.		Aged under 5, 5 under 15, 15 upwards.	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.												
	Census, 1901.	Estimated to middle of 1904.		1	2	3	4	5	6	7	8	9	10	11	12	13
				Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers.					Cholera.	Erysipelas.	Other.	TOTAL.
								Typhus.	Enteric or Typhoid.	Continued	Relapsing.	Puerperal.				
(a)	(b)	(c)	(d)													
Central	21,006	20,692	Under 5,	..	9	2	1	..	4	..	..	..	..	2	7	25
			5 under 15,	..	10	..	..	1	5	..	..	..	2	2	20	
			15 upwards.	2	3	3	..	2	10	..	..	1	..	11	3	35
North	38,762	42,311	Under 5,	..	43	10	..	..	2	..	..	..	..	2	16	73
			5 under 15,	..	63	10	..	..	6	..	..	..	..	1	13	93
			15 upwards.	11	23	11	..	..	22	..	..	4	..	35	9	115
North-East (H) ..	29,084	36,572	Under 5,	..	30	9	1	..	1	..	..	..	..	1	1	43
			5 under 15,	..	34	4	..	2	6	..	..	..	..	1	2	49
			15 upwards.	4	11	8	..	6	25	..	..	4	..	10	6	74
East	28,297	28,857	Under 5,	1	21	7	..	1	1	..	..	..	..	..	4	35
			5 under 15,	1	30	4	..	1	6	..	..	..	..	1	3	46
			15 upwards.	5	7	3	..	5	16	..	..	..	..	16	2	54
South	15,047	14,666	Under 5,	..	13	3	..	..	..	..	..	..	..	..	15	31
			5 under 15,	..	19	4	..	..	2	..	..	..	..	1	6	32
			15 upwards.	..	..	7	..	..	4	..	..	..	..	12	3	26
East Hunslet ..	33,450	35,206	Under 5,	2	32	10	1	..	4	..	..	..	..	1	10	60
			5 under 15,	1	39	10	..	..	9	..	..	..	..	3	5	67
			15 upwards.	5	8	13	..	..	23	..	..	4	..	22	6	81
West Hunslet ..	29,267	30,421	Under 5,	..	43	5	2	..	..	..	..	..	..	1	4	55
			5 under 15,	2	60	16	..	..	6	..	..	..	..	1	9	94
			15 upwards.	8	7	7	..	..	15	..	..	..	..	11	3	51
Holbeck	27,861	29,216	Under 5,	..	48	7	..	..	2	..	..	..	..	..	6	63
			5 under 15,	..	60	19	..	..	5	..	..	..	..	2	4	90
			15 upwards.	1	15	6	..	..	15	..	..	2	..	17	3	59
Mill Hill	7,736	7,497	Under 5,	..	10	1	..	..	1	..	..	..	..	1	3	16
			5 under 15,	1	13	2	..	..	1	..	..	..	..	2	3	22
			15 upwards.	2	8	8	..	..	5	..	..	..	..	9	2	34
West	23,914	23,780	Under 5,	2	21	6	2	..	2	..	..	..	..	1	1	35
			5 under 15,	..	42	3	..	..	3	..	..	..	..	..	6	54
			15 upwards.	4	11	21	..	..	10	..	..	1	..	23	2	72
North-West ..	32,239	33,006	Under 5,	..	27	11	1	..	..	..	..	..	..	1	4	44
			5 under 15,	..	79	11	..	..	1	1	..	..	..	1	6	99
			15 upwards.	..	12	8	..	..	13	..	..	4	..	23	4	64
Brunswick ..	22,893	22,963	Under 5,	1	18	5	1	..	..	..	..	..	..	2	1	28
			5 under 15,	1	42	3	..	..	1	..	..	..	..	2	3	52
			15 upwards.	7	5	6	..	..	7	..	..	..	..	16	4	45
New Wortley ..	18,734	18,614	Under 5,	..	16	4	1	..	1	..	..	..	..	1	1	24
			5 under 15,	..	23	1	1	..	..	..	..	..	..	..	1	26
			15 upwards.	..	6	2	..	..	4	..	..	2	..	9	..	23
Armley and Wortley	36,243	38,474	Under 5,	..	36	5	..	..	1	..	..	..	..	1	6	49
			5 under 15,	..	59	4	..	..	..	..	..	..	..	3	4	70
			15 upwards.	..	10	3	..	..	6	..	..	1	..	31	3	54
Bramley	21,650	22,313	Under 5,	..	19	8	1	..	..	..	..	..	..	..	3	31
			5 under 15,	..	39	14	..	..	2	..	..	..	..	3	1	59
			15 upwards.	2	8	2	..	..	5	..	..	2	..	14	2	35
Headingley ..	42,785	45,554	Under 5,	..	34	8	1	..	1	..	..	..	..	2	3	49
			5 under 15,	..	102	20	..	..	4	..	..	..	..	3	3	132
			15 upwards.	1	17	13	..	..	10	..	..	1	..	23	6	71
Totals	428,968	450,142	Under 5,	6	420	101	12	1	20	..	..	..	..	16	85	661
			5 under 15,	6	714	125	1	4	57	1	..	..	..	26	71	1005
			15 upwards.	52	151	121	..	13	190	..	..	26	..	282	58	893
Grand total ..	..	..	..	64	1285	347	13	18	267	1	..	26	..	324	214	2559

TABLE B, Part 2.—Wards (*continued*).

Names of Localities adopted for the purpose of these Statistics.	Population at all ages.		Aged under 5, 5 under 15, 15 upwards.	Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospitals.												
	Census, 1901.	Estimated to middle of 1904.		1	2	3	4	5	6	7	8	9	10	11	12	13
				Small-pox.	Scarlatina.	Diphtheria.	Membranous Group.	Fevers.					Cholera.	Erysipelas.	Other.	Total.
								Typhus.	Enteric or Typhoid.	Continued	Relapsing.	Puerperal.				
(a)	(b)	(c)	(d)													
Central ..	21,006	20,692	Under 5, 5 under 15, 15 upwards.	.. .. 2	5 4 3	2 .. 2	.. .. ..	.. 1 2	4 3 7	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	2 .. 1	13 8 17
North	38,762	42,311	Under 5, 5 under 15, 15 upwards.	.. .. 11	24 45 18	2 5 3	.. .. ..	.. .. ..	.. 1 15	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	6 4 8	32 54 55
North-East (H) ..	29,084	36,572	Under 5, 5 under 15, 15 upwards.	.. .. 4	15 24 9	1 2 3	.. .. ..	.. 2 6	.. 4 14	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. 1 5	16 33 41
East	28,297	28,857	Under 5, 5 under 15, 15 upwards.	1 1 5	14 22 5	2 1 ..	.. .. ..	1 1 5	.. 2 10	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	2 1 1	20 28 26
South	15,047	14,666	Under 5, 5 under 15, 15 upwards.	.. .. ..	9 15 ..	1 2 ..	.. .. ..	.. .. ..	.. 1 3	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. 2	10 18 5
East Hunslet ..	33,450	35,206	Under 5, 5 under 15, 15 upwards.	2 1 5	15 33 4	1 3 1	.. .. ..	.. .. ..	1 5 16	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	1 1 5	20 43 31
West Hunslet ..	23,267	30,421	Under 5, 5 under 15, 15 upwards.	.. 2 8	21 47 4	1 2 3	.. .. ..	.. .. ..	.. 4 8	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. 2 1	22 57 24
Holbeck	27,861	29,216	Under 5, 5 under 15, 15 upwards.	.. .. 1	26 41 14	3 8 2	.. .. ..	.. .. ..	2 5 12	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	1 .. 1	32 54 30
Mill Hill	7,736	7,497	Under 5, 5 under 15, 15 upwards.	.. 1 2	9 8 7	.. .. 2	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	1	10 9 11
West	23,914	23,780	Under 5, 5 under 15, 15 upwards.	2 .. 4	8 27 4	2 .. 5	.. .. ..	.. .. ..	.. 1 2	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	1 .. 1	13 28 16
North-West ..	32,239	33,006	Under 5, 5 under 15, 15 upwards.	.. .. ..	19 64 8	1 3 1	.. .. ..	.. .. ..	.. .. 4	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. 2 2	20 69 15
Brunswick	22,893	22,963	Under 5, 5 under 15, 15 upwards.	1 1 7	15 29 3	2 2 1	.. .. ..	.. .. ..	.. 1 5	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	1 2 1	19 35 17
New Wortley ..	18,734	18,614	Under 5, 5 under 15, 15 upwards.	.. .. ..	8 13 5	.. .. ..	.. .. ..	.. .. ..	1 .. 3	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	9 13 8
Armley and Wortley	36,243	38,474	Under 5, 5 under 15, 15 upwards.	.. .. ..	17 36 6	2 1 ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	1 2 1	20 39 7
Bramley	21,650	22,313	Under 5, 5 under 15, 15 upwards.	.. .. 2	11 28 7	.. 5 1	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	1	12 33 10
Headingley	42,785	45,554	Under 5, 5 under 15, 15 upwards.	.. .. 1	19 64 9	1 2 3	.. .. ..	.. .. ..	.. 1 5	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. 4	20 67 22
Totals	428,968	450,142	Under 5, 5 under 15, 15 upwards.	6 6 52	235 499 106	21 36 27	.. .. ..	1 4 13	8 28 104	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	17 15 33	288 588 335
Grand total ..	..	..	..	64	840	84	..	18	140	..	..	..	..	..	65	1211

New cases of Infectious Sickness heard of in the several Sub-districts and Wards of the City of Leeds during the thirteen weeks ended 2nd April, 1904.

		Where treated.	Small-pox.	Scarlet fever.	Diphtheria.	Membranous croup.	Typhus fever.	Typhoid fever.	Continued fever.	Puerperal fever.	Erysipelas.	Cholera.	Other.	TOTALS.
SUB-DISTRICTS.	North	{ Hosp. Home	2 ...	24 11	5 1	... ...	... ...	10 2	... ...	... 1	... 16	... ...	3 8	44 } 39 } 83
	West	{ Hosp. Home	... ...	50 26	3 26	... 1	... ...	4 8	... ...	... 4	... 17	... ...	1 3	58 } 85 } 143
	South-East	{ Hosp. Home	... ...	15 3	... 3	... ...	... ...	4 1	... ...	... ...	... 7	... ...	1 ...	20 } 14 } 34
	Hunslet	{ Hosp. Home	4 ...	44 18	4 10	... ...	... ...	3 4	... ...	... ...	... 12	... ...	... 5	55 } 49 } 104
	Holbeck	{ Hosp. Home	... ...	18 12	8 6	... ...	... ...	3 ...	... ...	... 1	... 2	... ...	... 3	29 } 24 } 53
	Wortley	{ Hosp. Home	... ...	20 16	1 5	... ...	... ...	... 4	... ...	... 1	... 10	... ...	1 1	22 } 37 } 59
	Kirkstall	{ Hosp. Home	... ...	12 4	2 10	... ...	... ...	... 4	... ...	... 1	... 11	... ...	3 2	17 } 32 } 49
	Bramley	{ Hosp. Home	... ...	14 1	1 5	... ...	... ...	... 1	... ...	... 2	... 6	... ...	... 3	15 } 18 } 33
	Chapeltown	{ Hosp. Home	... ...	19 12	2 10	... ...	... ...	2 3	... ...	... 1	... 5	... ...	... 1	23 } 32 } 55
	Osmondthorpe ...	{ Hosp. Home	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... } ... } ...
WARDS.	Central	{ Hosp. Home	... ...	4 3	1 ...	... ...	... ...	1 ...	... ...	... ...	... 6	... ...	... 2	6 } 11 } 17
	North	{ Hosp. Home	1 ...	27 11	4 8	... ...	... ...	5 3	... ...	... 1	... 14	... ...	3 6	40 } 43 } 83
	North-East	{ Hosp. Home	1 ...	10 7	2 3	... ...	... ...	7 2	... ...	... 1	... 1	... ...	... 1	20 } 15 } 35
	East.....	{ Hosp. Home	... ...	15 3	... 3	... ...	... ...	2 1	... ...	... ...	... 5	... ...	1 ...	18 } 12 } 30
	South	{ Hosp. Home	... ...	1 3	2 3	... ...	... ...	1 ...	... ...	... ...	... 5	... ...	... ...	4 } 11 } 15
	East-Hunslet	{ Hosp. Home	4 ...	26 9	2 4	... ...	... ...	... 3	... ...	... ...	... 8	... ...	... 2	32 } 26 } 58
	West-Hunslet.....	{ Hosp. Home	... ...	17 7	... 3	... ...	... ...	3 1	... ...	... ...	... 1	... ...	... 3	20 } 15 } 35
	Holbeck	{ Hosp. Home	... ...	18 11	8 6	... ...	... ...	3 ...	... ...	... 1	... 2	... ...	... 3	29 } 23 } 52
	Mill Hill.....	{ Hosp. Home	... ...	9 3	1 5	... ...	... ...	... ...	... ...	... ...	... 3	... ...	1 ...	11 } 11 } 22
	West.....	{ Hosp. Home	... ...	13 9	2 12	... 1	... ...	... 4	... ...	... 1	... 2	... ...	... 2	15 } 31 } 46
	North-West	{ Hosp. Home	... ...	18 9	... 7	... ...	... ...	2 3	... ...	... 3	... 7	... ...	... 1	20 } 30 } 50
	Brunswick	{ Hosp. Home	... ...	11 6	... 2	... ...	... ...	2 1	... ...	... ...	... 5	... ...	... ...	13 } 14 } 27
	New Wortley.....	{ Hosp. Home	... ...	6 10	... 1	... ...	... ...	... ...	... ...	... 1	... 2	... ...	... ...	6 } 14 } 20
	Armley & Wortley	{ Hosp. Home	... ...	12 6	1 4	... ...	... ...	... 3	... ...	... ...	... 8	... ...	1 1	14 } 22 } 36
	Bramley	{ Hosp. Home	... ...	16 1	1 5	... ...	... ...	... 2	... ...	... 2	... 6	... ...	... 3	17 } 19 } 36
	Headingley.....	{ Hosp. Home	... ...	13 5	2 10	... ...	... ...	... 4	... ...	... 1	... 11	... ...	3 2	18 } 33 } 51
	CITY	{ Hosp. Home	6 ...	216 103	26 76	... 1	... ...	26 27	... ...	... 11	... 86	... ...	9 26	283 } 330 } 613
Cases		6	319	102	1	..	53	...	11	86	...	35	613	

Three nurses and a maid at Manston Hall contracted scarlet fever, and one maid diphtheria. All were treated in the hospital. They are not included in the 216 and 26 given above. Cases of infectious illness occurring amongst the staff at the Beckett Street Hospital are entered in the district and ward in which the hospital is situated. Manston Hall is outside the city. In addition to the 283 cases hospitalised (out of the 613 reported during the quarter) 4 cases of scarlet fever which had been reported in previous quarter, were also taken to hospital.

B 4.

New cases of Infectious Sickness heard of in the several Sub-districts and Wards of the City of Leeds during the thirteen weeks ended 2nd July, 1904.

		Where treated.	Small-pox.	Scarlet fever.	Diphtheria.	Membranous croup.	Typhus fever.	Typhoid fever.	Continued fever.	Puerperal fever.	Erysipelas.	Cholera.	Other.	TOTALS.		
SUB-DISTRICTS.	North	{ Hosp. Home	9 ...	17 13	1 3	... ...	... ...	3 4	... ...	... ...	... 4	... ...	11 4	41 28	69
	West	{ Hosp. Home	2 ...	27 18	5 12	... 1	2 8 21	2 12	38 72		110
	South-East	{ Hosp. Home	1 ...	8 4	2 1	... ...	... ...	4 ...	... ...	... ...	... 6	... ...	... 2	15 13	28
	Hunslet	{ Hosp. Home	9 ...	36 18	1 10	1 7 1	... 6	3 9	50 51		101
	Holbeck	{ Hosp. Home	1 ...	17 9	3 8	... ...	... ...	4 1	... ...	... ...	... 5	... ...	1 2	26 25	51
	Wortley	{ Hosp. Home	43 17	... 3	... 2	1 1	... 16 1	44 40		84
	Kirkstall	{ Hosp. Home	... ...	14 7	2 9	... ...	... ...	... 1	... ...	... ...	... 1	... ...	... 2	16 20	36
	Bramley	{ Hosp. Home	9 2	1 4 2	1 ...	11 8		19
	Chapeltown	{ Hosp. Home	... ...	24 15	3 5	... ...	... ...	2 5	... ...	... 3	... 7	... ...	1 ...	30 35	65
	Osmondthorpe ...	{ Hosp. Home
WARDS.	Central	{ Hosp. Home	1 ...	2 4	... ...	... ...	... ...	1 ...	... ...	... ...	... 1	... ...	1 3	5 8	13
	North	{ Hosp. Home	8 ...	25 14	3 4	3 4 2	... 7	9 1	48 32		80
	North-East	{ Hosp. Home	... ...	7 6	1 3	... ...	... ...	1 5	... ...	... 1	... 2	... ...	2 1	11 18	29
	East.....	{ Hosp. Home	1 ...	7 4	2 1	4 5 1	14 11		25
	South	{ Hosp. Home	... ...	8 2	... 1	... ...	... ...	... ...	... ...	... ...	... 2	... ...	1 3	9 8	17
	East-Hunslet	{ Hosp. Home	2 ...	16 5	1 7 4 1	... 3	2 1	21 21		42
	West-Hunslet.....	{ Hosp. Home	7 ...	15 12	... 3	... ...	... ...	1 3	... ...	... ...	... 4	... ...	1 5	24 27	51
	Holbeck	{ Hosp. Home	1 ...	15 8	3 7	4 1 3 2	23 21		44
	Mill Hill.....	{ Hosp. Home	... ...	4 1	... 2	... ...	... ...	... 2	... ...	... ...	... 2	... ...	... 1	4 8	12
	West.....	{ Hosp. Home	2 ...	10 13	2 4 5 6 4	14 32		46
	North-West	{ Hosp. Home	... ...	8 2	1 5	... ...	... ...	1 ...	... ...	... ...	... 10	... ...	1 4	11 21	32
	Brunswick	{ Hosp. Home	12 6	2 2	... 1	1 1 4	1 3	16 17		33
	New Wortley.....	{ Hosp. Home	... ...	10 3	... 2	... 2	... ...	1 ...	... ...	... ...	... 4	... ...	... 1	11 12	23
	Armley & Wortley	{ Hosp. Home	33 11	... 1 1	... 11	33 24		57
	Bramley	{ Hosp. Home	... ...	9 5	1 4	... ...	... ...	... ...	... ...	... ...	... 3	... ...	1 ...	11 12	23
	Headingley.....	{ Hosp. Home	14 7	2 9 1 1 2	16 20		36
	CITY		{ Hosp. Home Cases	22 ... 22	195 103 298	18 55 73	... 3 3	17 26 43 5 5	... 68 68	19 32 51	271 292 563		563

A ward sister and a maid at Manston Hall contracted scarlet fever. Both were treated in the hospital. They are not included in the 195 given above. Cases of infectious illness occurring amongst the staff at the Beckett Street Hospital are entered in the district and ward in which the hospital is situated. Manston Hall is outside the city. In addition to the 271 cases hospitalised (out of the 563 reported during the quarter) 1 case of typhoid fever which had been reported in previous quarter, was also taken to hospital.

B 5.

New cases of Infectious Sickness heard of in the several Sub-districts and Wards of the City of Leeds during the thirteen weeks ended 1st October, 1904.

	Where treated.	Small-pox.	Scarlet fever.	Diphtheria.	Membranous croup.	Typhus fever.	Typhoid fever.	Continued fever.	Puerperal fever.	Erysipelas.	Cholera.	Other.	TOTALS.
SUB-DISTRICTS.	North	Hosp.	2	18	1	...	11	18	...	...	...	3	53
		Home	...	7	6	...	...	...	2	9	...	2	26
	West	Hosp.	3	50	2	...	...	2	...	...	...	1	58
		Home	...	26	21	...	...	7	1	22	...	5	82
	South-East	Hosp.	1	4	...	...	7	3	...	...	...	1	16
		Home	...	5	4	...	...	7	...	4	...	1	21
	Hunslet	Hosp.	3	22	6	...	...	18	...	...	...	1	50
		Home	...	17	19	1	...	6	1	9	...	7	60
	Holbeck	Hosp.	...	28	...	...	...	5	...	...	...	3	36
		Home	...	15	4	...	...	1	...	8	...	1	29
	Wortley	Hosp.	...	15	2	...	...	3	...	...	...	...	20
		Home	...	26	4	...	...	3	...	10	...	4	47
WARDS.	Central	Hosp.	...	2	...	...	3	8	...	...	...	1	14
		Home	...	2	1	...	...	...	1	4	...	1	9
	North	Hosp.	1	13	2	...	...	3	...	...	...	2	21
		Home	...	9	3	...	...	3	1	5	...	4	25
	North-East	Hosp.	3	13	1	...	8	7	...	...	...	2	34
		Home	...	5	4	...	...	1	...	3	...	1	14
	East	Hosp.	1	4	...	...	7	3	...	...	...	1	16
		Home	...	5	4	...	...	6	...	4	...	1	20
	South	Hosp.	...	1	1	...	...	1	...	...	...	...	3
		Home	...	2	5	...	...	2	...	1	...	5	15
	East-Hunslet	Hosp.	1	6	1	...	...	14	...	...	...	1	23
		Home	...	4	7	1	...	4	1	7	...	1	25
	West-Hunslet	Hosp.	2	20	4	...	...	3	...	...	...	2	31
		Home	...	13	8	...	...	1	...	1	...	1	24
	Holbeck	Hosp.	...	23	...	...	...	5	...	...	...	1	29
		Home	...	13	3	...	...	1	...	8	...	1	26
	Mill Hill	Hosp.	2	4	...	...	...	...	...	...	...	...	6
		Home	..	3	2	...	...	2	...	3	...	...	10
	West	Hosp.	1	10	..	...	...	1	...	...	...	...	12
		Home	...	8	4	...	...	3	...	9	...	...	24
	North-West	Hosp.	...	22	1	...	...	1	...	...	...	...	24
		Home	...	11	10	...	...	2	1	3	...	5	32
	Brunswick	Hosp.	...	15	2	...	...	1	...	...	...	2	20
		Home	...	5	5	...	...	...	...	7	...	...	17
	New Wortley	Hosp.	...	5	...	...	...	3	...	...	...	...	8
		Home	...	4	2	...	...	1	...	2	...	...	9
	Armley & Wortley	Hosp.	...	5	2	...	...	...	...	...	...	...	7
		Home	...	18	1	...	...	2	...	8	...	4	33
	Bramley	Hosp.	...	9	1	...	...	...	...	...	...	...	10
		Home	...	7	3	...	...	3	...	2	...	1	16
	Headingley	Hosp.	1	36	1	...	...	...	...	...	...	...	38
		Home	...	23	9	...	...	3	...	7	...	2	44
CITY	Hosp.	Hosp.	12	188	16	...	18	50	...	...	...	12	296
		Home	...	132	71	1	...	34	1	3	74	27	343
	Cases	Cases	12	320	87	1	18	84	1	3	74	39	639

Cases of infectious illness occurring amongst the staff at the Beckett Street Hospital are entered in the district and ward in which the hospital is situated. Manston Hall is outside the city.

B 6.

New cases of Infectious Sickness heard of in the several Sub-districts and Wards of the City of Leeds during the thirteen weeks ended 31st December, 1904.

		Where treated.	Small-pox.	Scarlet fever.	Diphtheria.	Membranous croup.	Typhus fever.	Typhoid fever.	Continued fever.	Puerperal fever.	Erysipelas.	Cholera.	Other.	TOTALS.
SUB-DISTRICTS.	North	Hosp.	1	23	5	...	...	8	...	...	...	...	6	43
		Home	...	7	5	2	...	10	...	1	16	...	3	44
	West	Hosp.	13	60	8	...	...	4	...	...	...	...	6	91
		Home	...	15	6	2	...	8	...	1	19	...	8	59
	South-East	Hosp.	5	16	1	...	...	5	...	...	...	...	3	30
		Home	...	7	4	...	...	5	...	...	5	...	9	30
	Hunslet	Hosp.	2	34	3	...	...	11	...	...	...	...	4	54
		Home	...	15	19	2	...	6	...	2	16	...	25	85
	Holbeck	Hosp.	...	28	2	...	...	9	...	...	...	...	1	40
		Home	...	10	3	...	...	2	...	1	8	...	5	29
SUB-DISTRICTS.	Wortley	Hosp.	...	15	...	...	...	...	...	...	...	...	3	18
		Home	...	15	5	...	...	3	...	1	10	...	5	39
	Kirkstall	Hosp.	...	29	1	...	...	5	...	...	...	...	1	36
		Home	...	26	7	1	...	2	...	...	9	...	2	47
	Bramley	Hosp.	2	11	3	...	...	...	...	...	...	...	...	16
		Home	...	5	6	1	...	1	...	...	6	...	1	20
	Chapelton	Hosp.	1	21	1	...	...	4	...	...	...	...	1	28
		Home	...	11	6	...	...	4	...	1	7	...	6	35
	Osmondthorpe	Hosp.	...	...	...	...	...	...	...	...	...	...	...	...
		Home	...	...	...	...	...	...	...	...	...	...	...	...
WARDS.	Central	Hosp.	1	4	3	...	...	4	...	...	...	...	1	13
		Home	...	1	...	1	...	5	...	...	4	...	3	14
	North	Hosp.	1	21	1	...	...	5	...	...	...	...	4	32
		Home	...	9	6	...	...	4	...	...	12	...	9	40
	North-East	Hosp.	...	18	2	...	...	3	...	...	...	...	2	25
		Home	...	9	5	1	...	6	...	2	6	...	...	29
	East	Hosp.	5	15	1	...	...	3	...	...	...	...	2	26
		Home	...	5	3	...	...	4	...	...	3	...	3	18
	South	Hosp.	...	14	...	...	...	2	...	...	...	...	1	17
		Home	...	1	2	...	...	...	...	...	5	...	14	22
	East-Hunslet	Hosp.	1	4	1	...	...	8	...	...	...	...	4	18
		Home	...	9	10	...	...	3	...	2	8	...	10	42
	West-Hunslet	Hosp.	1	20	2	...	...	5	...	...	...	...	...	28
		Home	...	6	8	2	...	4	...	...	7	...	4	31
	Holbeck	Hosp.	...	25	2	...	...	7	...	...	...	...	1	35
		Home	...	10	3	...	...	1	...	1	6	...	5	26
	Mill Hill	Hosp.	1	7	1	...	...	...	...	...	...	...	...	9
		Home	...	...	...	...	...	3	...	...	4	...	6	13
	West	Hosp.	3	5	3	...	...	2	...	...	...	...	2	15
		Home	...	6	3	1	...	...	...	...	7	...	1	18
	North-West	Hosp.	...	41	3	...	...	...	...	...	...	...	3	47
		Home	...	7	3	1	...	5	...	1	5	...	...	22
	Brunswick	Hosp.	9	8	1	...	...	2	...	...	...	...	1	21
		Home	...	2	...	...	...	...	...	...	4	...	1	7
	New Wortley	Hosp.	...	5	...	...	...	...	...	...	...	...	...	5
		Home	...	2	2	...	...	...	...	1	2	...	1	8
	Armley & Wortley	Hosp.	...	9	...	...	...	...	...	...	...	...	3	12
		Home	...	11	3	...	...	2	...	...	8	...	4	28
	Bramley	Hosp.	2	12	3	...	...	...	...	...	...	...	...	17
		Home	...	7	6	1	...	2	...	...	6	...	1	23
	Headingley	Hosp.	...	29	1	...	...	5	...	...	...	...	1	36
		Home	...	26	7	1	...	2	...	...	9	...	2	47
CITY	Hosp.	Hosp.	24	237	24	...	...	46	...	...	...	...	25	356
		Home	...	111	61	8	...	41	...	7	96	...	64	388
	Cases	Cases	24	348	85	8	...	87	...	7	96	...	89	744

One nurse and three maids at Manston Hall contracted scarlet fever. All were treated in the hospital. They are not included in the 237 given above. Cases of infectious illness occurring amongst the staff at the Beckett Street Hospital are entered in the district and ward in which the hospital is situated. Manston Hall is outside the city. In addition to the 356 cases hospitalised (out of the 744 reported during the quarter) 4 cases of scarlet fever which had been reported in previous quarter, were also taken to hospital.

B 7.

New cases of Infectious Sickness heard of in the several Sub-districts and Wards of the City of Leeds during the thirteen weeks ended 1st April, 1905.

	Where treated.	Small-pox.	Scarlet fever.	Diphtheria.	Membranous croup.	Typhus fever.	Typhoid fever.	Continued fever.	Puerperal fever.	Erysipelas.	Cholera.	Other.	TOTALS.
SUB-DISTRICTS.	North { Hosp.	38	20	6	...	...	22	...	...	...	...	7	93
	Home	1	2	4	2	...	3	...	3	17	...	12	44
	West { Hosp.	7	40	8	...	...	8	...	...	...	...	2	65
	Home	1	12	13	...	...	8	...	...	34	...	13	81
	South-East { Hosp.	26	16	8	...	...	12	...	...	...	...	2	64
	Home	...	3	4	...	...	3	...	2	7	...	3	22
	Hunslet { Hosp.	20	31	6	...	...	15	...	...	...	...	5	77
	Home	...	13	30	1	...	8	...	...	24	...	27	103
	Holbeck { Hosp.	5	18	9	...	...	3	...	...	...	...	1	36
	Home	1	3	3	...	...	1	...	...	7	...	13	28
WARDS.	Wortley { Hosp.	12	30	3	...	...	4	...	...	...	...	1	50
	Home	...	6	2	1	...	1	...	1	9	...	5	25
	Kirkstall { Hosp.	4	25	1	...	...	1	...	...	...	...	2	33
	Home	...	11	10	...	...	2	...	...	10	...	19	52
	Bramley { Hosp.	1	8	3	...	...	4	...	...	...	...	...	16
	Home	...	4	...	...	...	2	...	...	1	...	1	8
	Chapeltown { Hosp.	4	25	2	...	...	2	...	...	...	...	...	33
	Home	...	13	10	...	...	1	...	...	7	...	9	40
	Osmondthorpe ... { Hosp.	...	...	...	...	...	...	...	...	...	...	...	...
	Home	...	...	...	...	...	...	...	...	...	...	...	...
WARDS.	Central { Hosp.	9	2	2	...	...	13	...	...	...	...	1	27
	Home	1	...	2	1	...	...	...	2	3	...	1	10
	North { Hosp.	5	27	5	...	...	7	...	...	...	...	3	47
	Home	...	13	7	...	...	4	...	1	12	...	10	47
	North-East { Hosp.	28	14	1	...	...	5	...	...	...	...	3	51
	Home	...	1	1	1	...	...	...	...	8	...	10	21
	East..... { Hosp.	16	13	7	...	...	11	...	...	...	...	2	49
	Home	...	2	3	...	...	3	...	2	7	...	2	19
	South { Hosp.	18	14	3	...	...	3	...	...	...	...	...	38
	Home	...	2	4	...	...	1	...	...	7	...	3	17
	East-Hunslet { Hosp.	3	12	1	...	...	10	...	...	...	...	4	30
	Home	...	4	14	...	...	7	...	...	10	...	5	40
	West-Hunslet..... { Hosp.	10	13	4	...	...	3	...	...	...	...	1	31
	Home	...	9	14	1	...	...	...	...	8	...	20	52
	Holbeck { Hosp.	4	13	8	...	...	3	...	...	...	...	1	29
	Home	1	2	2	...	...	1	...	...	6	...	13	25
	Mill Hill..... { Hosp.	...	1	3	...	...	...	...	...	...	...	...	4
	Home	...	2	...	...	...	1	...	...	10	...	1	14
	West { Hosp.	1	14	1	...	...	3	...	...	...	...	1	20
	Home	...	2	7	...	...	1	...	...	8	...	5	23
	North-West { Hosp.	4	18	2	...	...	4	...	...	...	...	1	29
	Home	...	5	3	...	...	5	...	...	8	...	4	25
	Brunswick { Hosp.	2	8	2	...	...	...	...	...	...	...	...	12
	Home	1	4	6	...	...	1	...	...	9	...	3	24
	New Wortley { Hosp.	...	9	1	...	...	1	...	...	...	...	...	11
	Home	...	1	...	...	...	...	...	...	2	...	2	5
	Armley & Wortley { Hosp.	11	8	...	...	...	2	...	...	...	...	1	22
	Home	...	2	2	1	...	1	...	1	4	...	2	13
	Bramley { Hosp.	2	21	5	...	...	5	...	...	...	...	...	33
	Home	...	7	...	...	...	2	...	...	4	...	2	15
	Headingley..... { Hosp.	4	26	1	...	...	1	...	...	...	...	2	34
	Home	...	11	11	...	...	2	...	...	10	...	19	53
CITY	{ Hosp.	117	213	46	...	...	71	...	...	...	...	20	467
	{ Home	3	67	76	4	...	29	...	6	116	...	102	403
	{ Cases	120	280	122	4	...	100	...	6	116	...	122	870

Three nurses and one maid at Manston Hall contracted scarlet fever, and one nurse contracted typhoid fever, and all were treated in the hospital. They are not included in the 213 and 71 given above. Manston Hall is outside the city.

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TABLE C.

Table shewing deaths recorded in the City of Leeds during the fifty-two weeks ended 31st December, 1904, classified according to cause, age, and the registration sub-districts to which the patients belonged. Deaths in institutions allocated to districts to which patients belonged.

TOWNSHIPS, &c. ..	LEEDS.										Deaths of outsiders occurring in City.	TOTAL mortality in City.			Annual rate per 1,000 pop.			
	North. 59,089		West. 84,588		South E. 34,566													
	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5		under 5	over 5	under 5		over 5	under 5	over 5
Estim. Pop., 450,142 ..																		
Under and over 5 }																		
Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles ..	54	1	56	1	57	6	66	14	12	3	1	2	7	2	..	..	..	..
Scarlet fever ..	2	..	10	2	4	2	9	1	9	3	1	2	2	..	..	..	..	..
Typhus ..	1	14	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other or doubtful ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Influenza ..	..	8	..	4	..	2	..	1	10	..	..	..	..	..	..	..	..	..
Whooping-cough ..	30	3	24	1	29	..	32	22	31	..	12	2	14	..	..	..	..	..
Diphtheria ..	6	..	4	..	3	..	6	4	..	2	4	..	2	..	..	..	..	..
Cholera (English) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea, &c. ...	71	2	61	6	63	4	90	19	47	3	18	2	10	1	..	..	..	..
Ague ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Zoogenous diseases ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis ..	5	3	6	2	5	..	2	..	..	1	..	1	..	..	..	..	..	..
Gonorrhoea ..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..
Stricture of urethra }																		
Erysipelas ..	1	..	..	2	..	..	..	1	..	1	..	..	..	..	..	..	..	..
Pyæmia ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phagedæna ..	..	..	..	1	1	..	..	..	..	..	..	..	1	..	..	..	..	..
Septicæmia ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phlebitis ..	..	..	..	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Puerperal fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Parasitic diseases ..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Starvation, &c. ..	10	5	3	1	13	..	18	9	12	2	2	..	4	..	..	..	..	..
Alcoholism ..	..	..	..	8	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatic fever ..	..	1	..	1	..	..	..	1	..	..	..	1	..	1	..	..	..	..
Acute and Sub-acute rheumatism ..	..	4	1	2	..	2	..	..	..	7	..	..	..	2	..	..	..	..
Rheumatism ..	..	2	..	2	..	2	..	2	10	..	..	2	..	3	..	..	..	..
Gout ..	..	..	..	1	..	1	..	1	..	..	..	1	..	..	..	..	..	..
Rickets ..	20	1	13	..	26	1	7	4	..	..	2	..	2	..	..	..	..	..
Cancer ..	..	31	..	83	..	25	2	..	..	40	33	15	..	1	..	..	..	..

TABLE C (continued).

C. 2.

TOWNSHIPS, &c. ..	LEEDS.										Deaths of outsiders occurring in City.		TOTAL mortality in City.			Annual rate per 1,000 pop.						
	North.		West.		South E.																	
	Hunslet.		Holbeck.		Wortley.		Kirkstall.		Bramley.		Chapeltown.		Osmond- thorpe.									
	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	all ages.							
Under and over 5																						
Tabes mesenterica	13	3	8	3	7	3	20	3	1	2	1	3	3	2	..	..	92	1	93	0.21
Tub. meningitis	6	..	17	..	3	..	8	..	1	2	..	3	..	..	..	..	65	23	88	0.20
Hydrocephalus	2	..	..	..	1	..	3	..	..	..	..	..	..	..	..	..	8	..	8	0.02
Phthisis..	5	100	7	121	92	34	..	86	3	41	..	17	30	..	..	..	22	604	626	1.40
Tub. peritonitis	3	2	3	3	2	2	3	2	2	..	..	2	2	1	1	1	21	22	43	0.10
Other tuberculous	14	6	9	10	11	4	10	11	11	5	2	2	3	..	..	..	83	54	137	0.31
Scrofula	4	
Anæmia..	1	2	..	..	..	..	..	4	1	2	3	3	2	..	..	..	4	27	31	0.07
Diabetes, &c ..	..	6	..	2	4	2	..	8	..	1	2	2	..	2	..	..	..	39	39	0.09
Premature birth	38	..	47	..	25	..	33	..	22	..	8	..	17	..	..	..	274	..	274	0.61
Malformations and atelectasis (35)	11	..	11	..	7	..	17	..	2	..	3	..	3	..	..	..	74	..	74	0.16
Old age ..	..	44	..	78	..	26	..	50	..	31	..	21	30	1	..	..	..	389	389	0.87
Brain disease ..	1	46	..	52	22	22	20	39	18	9	9	9	10	..	..	..	5	262	267	0.60
Meningitis ..	11	6	9	5	4	4	12	2	4	1	3	1	2	2	..	..	82	26	108	0.24
Apoplexy ..	..	25	..	27	20	20	..	24	..	..	..	..	9	9	..	..	..	142	142	0.32
Paralysis ..	..	8	3	20	3	3	..	15	..	..	..	2	11	11	..	..	5	85	90	0.20
Gen. paralysis— Insanity ..	..	..	..	2	1	1	..	5	1	1	2	2	..	..	..	..	1	14	15	0.03
Epilepsy ..	..	3	..	3	1	1	1	1	1	2	2	2	1	1	..	..	5	19	24	0.05
Convulsions ..	31	..	24	..	26	..	27	1	10	..	4	..	11	..	..	..	178	1	179	0.40
Laryngismus stridulus	..	..	2	..	1	..	3	..	..	..	1	..	2	..	..	..	15	..	15	0.03
Other diseases of nervous system	1	4	..	11	3	7	..	2	1	4	..	1	1	2	..	..	5	41	46	0.10
Dis. of organs of special sense	2	..	..	..	..	..	2	1	..	..	1	..	2	..	..	..	9	8	17	0.04
Endocarditis, &c.	..	27	..	50	34	20	..	34	19	5	..	5	21	..	..	..	..	251	251	0.56
Pericarditis	48	..	2	4	4	4	0.01	
Heart disease ..	..	..	1	95	31	25	2	59	28	15	..	15	17	..	..	..	4	374	378	0.84
Angina pectoris	1	1	1	1	1	1	3	3	3	0.01	
Syncope	3	..	1	1	9	9	9	0.02	
Aneurism	3	..	3	3	1	1	1	16	16	16	0.04	
Other circulatory	..	1	..	5	1	3	1	1	1	16	16	16	0.04	
Laryngitis ..	3	..	2	..	1	..	2	1	..	..	..	..	3	..	..	..	13	4	17	0.04
Croup (membranous)	2	..	4	..	..	..	1	1	..	..	..	..	..	..	..	..	8	2	10	0.02
Croup (undeline)	4	..	..	..	..	..	..	1	..	1	1	..	..	..	..	..	9	1	10	0.02
Bronchitis ..	28	59	37	83	49	34	40	56	28	19	12	19	13	22	..	..	256	399	655	1.46
Broncho-pneumonia	43	11	50	14	3	5	38	2	17	4	4	4	12	..	..	..	289	52	341	0.76
Pneumonia ..	14	33	20	35	23	13	4	23	10	9	7	9	5	6	..	..	130	187	317	0.71
Pleuro-pneumonia	..	1	..	1	..	1	..	1	5	5	5	0.01	
Pleurisy..	..	1	..	5	1	11	11	11	0.02	
Other respiratory	2	7	1	6	..	3	4	7	2	4	1	4	..	6	..	..	15	49	64	0.14

TOWNSHIPS, &c. ..	LEEDS.						Hun-let.		Holbeck.		Wortley.		Kirkstall.		Bramley.		Chapel-town.		Osmond- thorpe.		Deaths of outsiders occurring in City		TOTAL mortality in City.			Annual rate per 1,000 pop.
	North.		West.		South E.																					
	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	under 5	over 5	all ages.			
Under and over 5 {	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	0'01	
Stomatitis ..	23	..	15	..	..	..	18	..	5	..	24	..	5	..	..	..	..	..	..	..	..	..	110	0'25	
Dentition ..	..	..	..	2	..	..	1	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..	3	0'02	
Tonsillitis, &c. ..	6	5	8	13	2	..	3	9	3	2	6	3	2	2	2	2	2	2	2	2	2	2	32	0'18		
Dis. of stomach ..	11	1	24	1	3	1	9	..	5	1	16	2	6	2	2	2	2	2	2	2	2	2	82	0'20		
Enteritis (Gastro 34) ..	..	2	..	7	1	..	..	4	1	2	..	2	..	1	..	..	..	..	..	..	..	..	2	0'07	
Hernia ..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	0'01	
Fistula ..	..	..	..	2	..	..	1	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	0'03	
Peritonitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ascitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Jaundice ..	..	..	1	1	..	..	2	..	1	1	1	..	2	1	..	..	..	..	..	..	..	..	7	0'02	
Cirrhosis ..	..	..	..	5	..	..	8	..	1	1	4	4	..	1	..	..	4	..	..	..	..	..	38	0'08	
Dis. of liver ..	..	1	2	10	..	1	..	3	..	2	1	4	..	4	..	2	5	..	..	..	..	..	3	0'09	
Dis. of bowels ..	4	2	2	16	..	2	2	1	3	3	2	12	1	3	1	2	4	4	..	..	..	..	18	0'17	
Disease of ductless glands ..	..	..	..	1	..	1	2	..	1	1	..	1	..	5	..	1	3	..	..	..	..	..	15	0'03	
Nephritis ..	2	9	1	17	1	12	4	14	2	4	3	13	1	11	..	3	8	..	..	..	..	..	14	0'24	
Kidney disease ..	..	17	..	16	..	3	..	9	..	4	..	17	1	10	..	2	5	..	..	..	..	..	1	88	0'20
Albuminuri ..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	0'01
Other urinary ..	..	1	..	2	..	..	..	2	..	2	..	2	..	..	..	2	1	..	..	..	..	..	..	12	0'03
Dis. of generative Organs ..	..	..	..	6	..	1	..	5	..	1	..	3	..	2	..	..	1	..	..	..	..	..	..	23	0'05
Childbirth ..	1	3	2	4	..	5	1	1	..	8	..	8	..	..	..	4	1	..	..	..	..	..	..	39	0'09
Disease of bones (21), Joints (3), arthritis (6) }	..	3	1	4	..	1	1	8	..	..	..	3	..	6	..	1	..	..	..	..	1	1	3	30	0'07
Ulcer: Phlegmon (o) ..	..	3	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	6	0'01
Skin disease ..	1	..	2	..	..	..	..	..	4	..	..	1	..	..	..	..	..	..	..	..	..	..	7	0'02	
Injury ..	11	22	12	32	6	15	4	25	1	19	7	27	4	19	..	7	10	..	..	..	..	..	51	245	0'45
Lead poisoning ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0'00
Mortification ..	..	2	..	1	..	1	7	..	..	2	..	2	..	1	..	..	1	..	..	..	..	..	1	18	0'04
Debility ..	13	2	12	1	10	..	12	4	10	1	15	2	11	1	3	1	..	..	..	..	..	..	87	12	0'22
Marasmus, Atrophy ..	25	..	32	..	27	1	18	2	14	..	20	..	4	..	5	..	2	..	..	..	..	..	147	3	0'33
Tumour ..	..	1	..	7	..	4	..	2	..	3	..	2	..	1	..	..	1	..	..	..	..	..	..	30	0'07
Abscess ..	3	1	..	3	..	2	..	6	3	1	..	2	..	2	..	..	..	..	..	..	..	..	6	19	0'06
Other causes ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total under 5 and over 5 ..	536	613	551	922	488	440	658	685	305	325	445	655	214	337	107	183	166	288	..	4	18	155	3,488	4,608	8,096	18'05
Total ..	1,149	1,473	1,473	928	928	928	1,344	1,344	630	630	1,100	1,100	551	551	290	290	454	454	4	4	173	..	8,096	8,096
Mortality per 1,000 per annum ..	19'5	17'5	17'5	26'0	26'0	26'0	18'8	18'8	19'2	19'2	11'9	11'9	12'5	12'5	16'3	16'3	10'6	10'6	10'8	10'8	66'9	11'6	18'0	..

NOTES TO TABLE C.

This table is printed for the first time in the report for 1892. In it the causes of death are more detailed than in the other tables. They are classified as in Table A, part 2, according as the deaths were those of persons under or over the age of five. All the deaths which occurred in the following public institutions: the Infirmary, the Women and Children's Hospital, the Borough Fever and Small-pox Hospitals, the Leeds, Hunslet, Holbeck, and Bramley Workhouses, have been classified under the districts to which the patients belonged. The 173 deaths of persons who belonged to no district in the city have been separated in two columns by themselves, as deaths of outsiders; these deaths are, however, included in the total mortality of the city. As far as possible, the order of the Registrar-General has been followed in the arrangement of this table. The horizontal lines correspond with the groups in the Registrar-General's annual report.

Septicæmia includes deaths from pyæmia (2), phlebitis (1), phagedæna (0), septicæmia (not puerperal) (2). *Parasitic* diseases include thrush (3). *Starvation* includes purpura hæmorrhagica (1), scurvy (1), privation and want of breast milk (1), malnutrition (26), and inanition (50 deaths). *Rheumatic fever* in reports previous to 1892 had only the deaths ascribed in those terms to this disease by the medical attendant. Deaths from acute and sub-acute rheumatism had previously been classed under "rheumatism." A separate line has been given, both in Table C and Table A, to prevent confusion and enable comparison. "*Rheumatism*" includes chronic rheumatism and disease simply described as "rheumatism" (see Report, 1893, page 144). *Anæmia* includes chlorosis (0), hæmophilia (1), but not leucocythemia; deaths from the latter have been referred to diseases of the *ductless glands*. In *malformations* are included cyanosis (5), patent foramen ovale (2), spina bifida (8), atelectasis (35), imperforate anus (2), cleft palate (0), harelip (0), and (22) other congenital defects.

Brain disease includes deaths registered from such causes as cerebral congestion, cerebral hæmorrhage, and softening of the brain. *Meningitis* includes diseases classified as meningitis (107), and spinal (1) meningitis, but not tuberculous. *Apoplexy* includes all apoplexies not otherwise defined. *Paralysis* includes hemiplegia, paraplegia, and "paralysis." *General paralysis* (7) is included under insanity, and does not include deaths from "softening of the brain." *Convulsions* includes diseases so certified, and deaths (2) due to "fits." Fits of apoplexy, &c., come under other headings. We have tried, as far as possible, to keep to the old headings.

Endocarditis, &c., includes valvular disease of the heart. "Heart disease" includes such diseases as hypertrophy, atrophy, fatty degeneration, weak heart, cardiac disease or degeneration and "disease of the heart." *Angina pectoris* includes only those deaths in which the symptom but no disease is stated. *Aneurism* includes all the aneurisms so stated. *Other diseases of the circulatory system* includes atheroma. *Other respiratory diseases* includes asthma (24), emphysema (11), empyæma (3), pulmonary congestion (14), "lung disease" (1), and others (11). *Tonsillitis, &c.* includes pharyngitis (1), parotiditis (2). *Diseases of the stomach* includes dyspepsia, hæmatemesis, gastritis. To avoid too many lines two deaths from disease of the pancreas and (0) from stricture of the œsophagus have been included. *Disease of liver* includes hepatitis (7). *Diseases of the bowels* includes melœna (0), ulcer of intestines, obstruction of bowels, strangulation not due to hernia, intussusception, appendicitis. *Kidney disease* includes deaths from granular kidney (11), Bright's disease (54), other kidney diseases (18), and uræmia (5). *Albuminuria* includes only deaths in which the symptom without any pathological cause was registered. *Diseases of the urinary system* includes calculus, hæmaturia, cystitis and other diseases of the bladder. *Disease of the generative organs* includes uterine disease (1), ovarian disease (4), and "other diseases" of the generative organs, male (11), female (7). *Childbirth* includes all the accidents of parturition, except puerperal fever.

Diseases of the bones and joints includes disease of the spinal column, but not, of course, such diseases as spinal sclerosis, which are now referred to disease of the nervous system. A comparison of mortality previous to 1890 is difficult, as the term spinal disease was used to include both diseases of the spinal column and of the spinal marrow. *Abscess* includes cellulitis (4), carbuncle (1). *Injury* includes deaths from accident or negligence, homicide, misadventure, suicide, and execution.

TABLE D, Part 1.—Shewing death-rates from certain causes for the years 1890 to 1904.

SEVEN COMMON ZYMOTICS.												
	Small-pox.	Measles.	Scarlatina.	Diph-theria.	Whooping cough.	“Fever.”	Diarrhoea.	All seven.	Croup (mem-branous and undefined)	Phthisis.	Influenza and diseases of the air-passages other than consumption.	
1890 (53 wks.)	0·00	0·27	0·28	0·07	0·50	0·30	0·98	2·39	0·09	1·66	5·62	
1891 (52 wks.)	0·00	0·71	0·18	0·04	0·41	0·20	0·86	2·41	0·08	1·79	6·11	
1892 (52 wks.)	0·02	0·20	0·20	0·08	0·42	0·17	1·10	2·18	0·13	1·42	4·56	
1893 (52 wks.)	0·08	0·90	0·08	0·15	0·44	0·30	1·60	3·55	0·18	1·70	4·60	
1894 (52 wks.)	0·01	0·75	0·13	0·15	0·34	0·14	0·45	1·98	0·17	1·49	3·64	
1895 (52 wks.)	...	0·35	0·13	0·10	0·29	0·22	1·58	2·65	0·12	1·55	4·34	
1896 (53 wks.)	0·00	0·48	0·18	0·10	0·60	0·21	0·69	2·27	0·09	1·50	4·02	
1897 (52 wks.)	...	0·40	0·23	0·13	0·24	0·21	1·58	2·79	0·10	1·44	3·90	
1898 (52 wks.)	0·00	0·45	0·29	0·49	0·39	0·23	1·24	3·10	0·12	1·39	3·41	
1899 (52 wks)	...	0·37	0·15	0·71	0·38	0·17	0·96	2·73	0·12	1·41	3·72	
1900 (52 wks)	0·00	0·58	0·12	0·55	0·39	0·20	1·09	2·93	0·06	1·41	4·19	
1901 (52 wks)	...	0·58	0·19	0·38	0·33	0·19	1·47	3·14	0·07	1·41	3·46	
1902 (53 wks)	0·01	0·43	0·13	0·18	0·46	0·18	0·61	2·00	0·05	1·31	3·52	
1903 (52 wks)	0·05	0·28	0·25	0·14	0·27	0·13	0·62	1·74	0·03	1·27	3·09	
1904 (52 wks)	0·00	0·77	0·13	0·09	0·46	0·11	1·01	2·57	0·05	1·40	3·21	

See note to table D, part 2.

TABLE D, Part 2.
For whole District.

Year.	Population estimated to middle of each year. *	Births.		Deaths under one year of age.		Deaths at all ages. Total.		Deaths in Public Institutions.	Deaths of non-resid'nts registered in district.	Deaths of resid'nts registered beyond district.	Deaths at all ages net.	
		Number.	Rate.*	Number	Rate per 1,000 births registered.	Number	Rate.*				Number	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1890	362,768	12,336	33'4	2,128	173	8,370	22'7	819	132	No return	8,238	22'4
1891	369,099	12,538	34'1	2,216	177	8,429	22'9	869	144	do.	8,285	22'5
1892	375,540	12,546	33'5	2,114	168	7,403	19'8	789	129	do.	7,274	19'4
1893	382,094	12,348	32'4	2,542	206	8,512	22'4	874	147	24	8,365	22'0
1894	388,761	12,502	32'3	1,945	156	6,935	17'9	772	142	7	6,793	17'5
1895	395,546	12,478	31'7	2,384	191	8,101	20'6	882	167	No return	7,934	20'1
1896	402,449	12,573	30'8	2,120	169	7,682	18'8	908	161	8	7,521	18'4
1897	409,472	12,912	31'6	2,454	190	8,148	20'0	881	175	1	7,973	19'5
1898	416,618	12,971	31'2	2,372	183	7,996	19'3	940	142	9	7,854	18'9
1899	423,889	12,939	31'2	2,222	172	8,105	19'2	1,005	181	26	7,924	18'8
1900	431,287	13,091	30'5	2,397	183	8,619	20'1	1,084	184	90	8,525	19'8
1901	430,630	12,898	30'1	2,429	188	8,283	19'3	1,176	171	92	8,204	19'1
1902	437,341	13,245	29'8	2,113	160	7,814	17'6	1,154	211	96	7,699	17'3
1903	443,559	12,996	29'4	1,992	153	7,334	16'6	1,094	184	113	7,263	16'4
Averages for years 1894-1903		12,861	30'9	2,243	174	7,902	18'9	990	172	...	7,769	18'6
1904	450,142	12,561	28'0	2,207	176	8,096	18'0	1,185	173	116	8,039	17'9

* Rates calculated per 1,000 of estimated population. The populations given in column 2 for the 11 years, 1890 to 1900, are those estimated by geometrical progression at the rate of increase which obtained between censuses of 1881-1891. That for 1901 has been estimated similarly from the rate which prevailed between the censuses of 1891-1901. To make the populations for 1900 and the previous years correspond they should be decreased respectively by the following percentages: (for 1900) 1'72, (for 1899) 1'53, (for 1898) 1'34, diminishing by about 0'19 each year to (for 1892) 0'21, and (for 1891) 0'05. The rates in columns 4, 8, and 13 must be correspondingly increased by these percentages (see Annual, 1901, and table on p. 58)

The deaths included in column 7 of this table are the whole of those registered during the year as having actually occurred within the City or in the fever hospital at Seacroft. The deaths included in column 12 are the numbers in column 7, corrected by the subtraction of the numbers in column 10 and the addition of the numbers in column 11. Column 11 is however, incomplete in some of the years. Deaths in fever hospitals belonging to but outside the City are, unless those of strangers, included in column 7.

By the term "Non-residents" is meant persons brought into the district on account of illness, and dying in some public institution, and paupers from townships outside the City dying at the Workhouse; and by the term "Residents" is meant persons who have been taken out of the district on account of illness, and have died in some public institution, other than our own fever hospitals, and inmates of the County Asylums from the City townships.

TABLE E.
VITAL STATISTICS FOR 1904.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the fifty-two weeks ended 31st December, 1904. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the estimated population.

Districts.		Births.	Birth Rate.	Deaths.	Death Rate.	
					All causes.	7 Zymotics.
LEEDS.	North	1,875	31·84	1,149	19·51	3·21
	West	1,921	22·79	1,473	17·47	2·06
	South-East	1,254	36·40	928	26·94	4·91
	Hunslet	2,264	31·61	1,344	18·76	3·21
	Holbeck	1,108	33·84	630	19·24	3·18
	Wortley	1,666	27·14	1,100	17·92	1·91
	Kirkstall	1,069	24·22	551	12·49	1·50
	Bramley	470	26·49	290	16·34	2·31
	Chapelton	930	21·64	454	10·56	1·63
	Osmondthorpe	4	10·82	4	10·82	...
Outsiders ... ..		...	...	173	...	...
Totals		12,561	28·00	8,096	18·05	2·59

Considered as occurring in the Municipal Wards, the foregoing Deaths are classed as follows:—

Wards.	Deaths.	Death Rate.	Wards.	Deaths.	Death Rate.
Eastern Division.			Western Division.		
Central	338	16·39	Mill Hill	140	18·74
North	601	14·25	West	508	21·44
North-East	645	17·70	North-West	500	15·20
East	765	26·60	Brunswick... ..	354	15·47
South	374	25·59	New Wortley	387	20·86
East Hunslet	643	18·33	Armley	647	16·87
West Hunslet	546	18·01	Bramley	356	16·01
Holbeck	543	18·65	Headingley	576	12·69

In both these tables deaths occurring in public institutions have been referred to the districts to which the patients belonged. The births in workhouses are included in those of the districts in which these institutions are situated. There were thirty-eight deaths at Manston Hospital, and three deaths at Killingbeck Hospital, during the year.

E 2.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended 2nd April, 1904. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the estimated population.

Districts.		Births.	Birth Rate.	Deaths.	Death Rate.	
					All causes.	7 Zymotics.
LEEDS.	North	472	32·1	336	22·8	3·0
	West	477	22·6	428	20·3	2·1
	South-East	320	37·2	269	31·2	4·5
	Hunslet	561	31·3	355	19·8	2·0
	Holbeck	310	37·9	155	18·9	2·0
	Wortley	449	29·3	326	21·2	2·4
	Kirkstall	277	25·1	179	16·2	1·5
	Bramley	125	28·2	72	16·2	1·4
	Chapelton	224	20·8	135	12·6	2·7
	Osmondthorpe	1	10·8	...	...	...
Outsiders ... ..		...	...	45	...	...
Totals		3,216	28·7	2,300	20·5	2·4

Considered as occurring in the Municipal Wards, the foregoing Deaths are classed as follows:—

Wards.	Deaths.	Death Rate.	Wards.	Deaths.	Death Rate.
Eastern Division.			Western Division.		
Central	106	20·6	Mill Hill	40	21·4
North	176	16·7	West	149	25·1
North-East	180	19·8	North-West	139	16·9
East	219	30·5	Brunswick... ..	110	19·2
South	114	31·2	New Wortley	99	21·3
East Hunslet	156	17·8	Armley	201	21·0
West Hunslet	154	20·3	Bramley	98	17·6
Holbeck	127	17·4	Headingley	187	16·5

In both these tables deaths occurring in public institutions have been referred to the districts to which the patients belonged. The births in workhouses are included in those of the districts in which these institutions are situated. There were fourteen deaths at Manston Hospital during this quarter.

E 3

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended 2nd July, 1904. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the estimated population.

Districts.			Births.	Birth Rate.	Deaths.	Death Rate. All causes. 7 Zymotics.	
LEEDS.	North ...	...	511	34·7	273	18·5	3·5
	West ...	...	463	22·0	367	17·4	2·1
	South-East	...	311	36·1	233	27·1	3·7
	Hunslet ...	...	575	32·1	304	17·0	2·6
	Holbeck ...	...	265	32·4	162	19·8	4·3
	Wortley ...	...	425	27·7	273	17·8	1·6
	Kirkstall ...	...	266	24·1	139	12·6	1·7
	Bramley ...	...	123	27·7	81	18·3	2·3
	Chapeltown	...	241	22·4	100	9·3	0·8
	Osmondthorpe	...	...	...	4	43·3	...
Outsiders		...	...	43	...	...
Totals ...			3,180	28·4	1,979	17·6	2·4

Considered as occurring in the Municipal Wards, the foregoing Deaths are classed as follows:—

Wards.			Deaths.	Death Rate.	Wards.			Deaths.	Death Rate.
Eastern Division.					Western Division.				
Central	...	...	70	13·6	Mill Hill	...	...	33	17·7
North	...	...	135	12·8	West	...	...	125	21·1
North-East	...	...	163	17·9	North-West	...	...	128	15·6
East	...	...	197	27·4	Brunswick...	...	...	92	16·1
South	...	...	67	18·3	New Wortley	...	...	106	22·9
East Hunslet	...	...	157	17·9	Armley	...	...	150	15·6
West Hunslet	...	...	133	17·5	Bramley	...	...	98	17·6
Holbeck	...	...	139	19·1	Headingley	...	...	143	12·6

In both these tables deaths occurring in public institutions have been referred to the districts to which the patients belonged. The births in workhouses are included in those of the districts in which these institutions are situated. There were eleven deaths at Manston Hospital and one death at Killingbeck Hospital during this quarter.

E 4.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended 1st October, 1904. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the estimated population.

Districts.			Births.	Birth Rate.	Deaths.	Death Rate. All causes. 7 Zymotics.	
LEEDS.	{ North	501	34·0	287	19·5	5·4	
	{ West	471	22·3	354	16·8	3·4	
	{ South-East	317	36·8	247	28·7	10·8	
	Hunslet	580	32·4	373	20·8	6·9	
	Holbeck	295	36·0	153	18·7	5·1	
	Wortley	391	25·5	238	15·5	3·2	
	Kirkstall	245	22·2	113	10·2	2·3	
	Bramley	115	25·9	76	17·1	4·7	
	Chapeltown	227	21·1	101	9·4	2·3	
Osmondthorpe	2	21·6	...	...	...
Outsiders ... ..	...	...	47	...	...
Totals			3,144	28·0	1,989	17·7	4·7

Considered as occurring in the Municipal Wards, the foregoing Deaths are classed as follows:—

Wards.			Deaths.	Death Rate.	Wards.			Deaths.	Death Rate.
Eastern Division.					Western Division.				
Central	...	...	73	14·2	Mill Hill	...	...	39	20·9
North	...	...	144	13·7	West	...	...	128	21·6
North-East	...	...	178	19·5	North-West	...	...	125	15·2
East	...	...	203	28·2	Brunswick...	...	...	62	10·8
South	...	...	109	29·8	New Wortley	...	...	86	18·5
East Hunslet	...	...	174	19·8	Armley	...	...	142	14·8
West Hunslet	...	...	146	19·3	Bramley	...	...	86	15·5
Holbeck	...	...	133	18·3	Headingley	...	...	114	10·0

In both these tables deaths occurring in public institutions have been referred to the districts to which the patients belonged. The births in workhouses are included in those of the districts in which these institutions are situated. There were six deaths at Manston Hospital this quarter. One death registered in the township of Wortley, which occurred at the Consumptive Hospital, Armley, has been allocated to the district to which the patient formerly belonged.

E 5.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended 31st December, 1904. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the estimated population.

Districts.			Births.	Birth Rate.	Deaths.	Death Rate.	
						All causes.	7 Zymotics.
LEEDS.	{ North ... ..	...	391	26·6	253	17·2	1·0
	{ West ... ..	...	510	24·2	324	15·4	0·7
	{ South-East ... ..	...	306	35·5	179	20·8	0·6
	Hunslet ... ..	..	548	30·6	312	17·4	1·3
	Holbeck ... ..	...	238	29·1	160	19·5	1·3
	Wortley ... ..	...	401	26·1	263	17·1	0·5
	Kirkstall ... ..	...	281	25·5	120	10·9	0·5
	Bramley ... ..	...	107	24·1	61	13·8	0·9
	Chapeltown ... ..	...	238	22·2	118	11·0	0·7
Osmondthorpe ... ..		...	1	10·8	...	...	...
<i>Outsiders</i> ... ..		...	...	...	38	...	...
Totals			3,021	26·9	1,828	16·3	0·8

Considered as occurring in the Municipal Wards, the foregoing Deaths are classed as follows:—

Wards.			Deaths.	Death Rate.	Wards.			Deaths.	Death Rate.
Eastern Division.					Western Division.				
Central	...	...	89	17·3	Mill Hill	...	...	27	14·5
North	...	...	146	13·8	West	...	...	106	17·9
North-East	...	...	124	13·6	North-West	...	...	108	13·1
East	...	...	146	20·3	Brunswick	...	...	91	15·9
South	...	...	84	23·0	New Wortley	...	...	96	20·7
East Hunslet	...	...	156	17·8	Armley	...	...	154	16·1
West Hunslet	...	...	113	14·9	Bramley	...	...	74	13·3
Holbeck	...	...	144	19·8	Headingley	...	...	132	11·6

In both these tables deaths occurring in public institutions have been referred to the districts to which the patients belonged. The births in workhouses are included in those of the districts in which these institutions are situated. There were seven deaths at Manston Hospital and two deaths at Killingbeck Hospital during this quarter. Five deaths registered in the township of Wortley, which occurred at the Consumptive Hospital, Armley, have been allocated to the districts to which the patients formerly belonged.

E 6.

The following Births and Deaths were recorded in the several Sub-Registration Districts of the City of Leeds during the thirteen weeks ended 1st April, 1905. The figures in italics after the Births and Deaths give the proportion per annum per 1,000 of the estimated population.

Districts.			Births.	Birth Rate.	Deaths.	Death Rate. All causes. 7 Zymotics.	
LEEDS.	North ...	...	505	34·7	282	19·4	1·0
	West ...	...	517	24·5	352	16·7	0·4
	South-East	...	312	36·3	194	22·6	1·2
	Hunslet ...	..	549	30·0	241	13·2	0·7
	Holbeck...	...	285	32·9	134	15·5	0·9
	Wortley ...	...	434	27·7	240	15·3	0·8
	Kirkstall...	...	276	24·3	154	13·6	1·0
	Bramley ...	...	113	25·4	60	13·5	2·0
	Chapeltown	...	263	23·8	131	11·8	0·3
	Osmondthorpe	...	1	10·6	...	...	...
	<i>Outsiders</i>	...	...	...	31	...	...
Totals ...			3,255	28·6	1,819	16·0	0·8

Considered as occurring in the Municipal Wards, the foregoing Deaths are classed as follows:—

Wards.		Deaths.	Death Rate.	Wards.		Deaths.	Death Rate.
Eastern Division.				Western Division.			
Central ...	...	89	17·8	Mill Hill ...	...	33	18·4
North ...	...	149	13·8	West ...	...	114	19·6
North-East	...	166	19·6	North-West	...	130	15·3
East ...	...	154	21·3	Brunswick...	...	85	15·0
South ...	...	69	19·5	New Wortley	...	73	16·0
East Hunslet	...	113	12·5	Armley ...	...	153	15·4
West Hunslet	...	114	14·7	Bramley ...	...	74	13·1
Holbeck ...	...	112	14·5	Headingley	...	160	13·0

In both these tables deaths occurring in public institutions have been referred to the districts to which the patients belonged. The births in workhouses are included in those of the districts in which these institutions are situated. There were twenty-seven deaths at Manston Hospital and three deaths at Killingbeck Hospital during this quarter.

TABLE F 1).

Shewing Births, Deaths, from all and certain causes, Home Patients of the Dispensary, admissions to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certain causes in Leeds: with the Birth and Death-rates from all causes in the 76 large English towns for each of the thirteen weeks ended 2nd January, 1904.

1903.		OCTOBER.				NOVEMBER.				DECEMBER.					TOTALS OR AVERAGES.	YEAR.
		Oct. 10th.	Oct. 17th.	Oct. 24th.	Oct. 31st.	Nov. 7th.	Nov. 14th.	Nov. 21st.	Nov. 28th.	Dec. 5th.	Dec. 12th.	Dec. 19th.	Dec. 26th.	Jan. 2nd.		
Total Births	1	238	258	235	269	255	250	233	250	241	252	242	193	265	3,181	12,996
Total Deaths	2	140	130	133	159	171	203	158	172	147	168	163	173	181	2,098	7,334
Under 1 year	3	35	39	36	45	54	66	50	48	43	48	45	45	49	603	1,992
1 to 2 years.....	4	7	11	11	14	17	17	17	20	14	14	14	23	19	198	565
2 to 5 years.....	5	9	5	7	12	7	10	9	12	7	9	14	14	15	130	379
5 to 60 years	6	57	47	47	53	50	59	50	62	52	58	43	53	62	693	2,635
60 yrs. and upwards	7	32	28	32	35	43	51	32	30	31	39	47	38	36	474	1,763
Deaths: Small-pox..	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23
Measles	9	...	1	1	1	1	...	4	7	3	7	5	10	10	50	123
Scarlet Fever	10	2	5	1	3	...	3	3	4	...	1	1	1	...	24	109
*Diphtheria	11	...	1	...	1	3	1	...	...	2	1	...	2	1	12	65
Whooping-cough..	12	1	1	3	1	2	3	2	3	2	9	5	5	10	47	119
Typhus Fever.....	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhoid Fever ...	14	1	4	...	3	1	2	...	1	1	1	1	3	2	20	58
Other or doubtful	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea or Dysent.	16	10	9	8	1	1	4	3	2	1	2	2	2	...	45	275
All seven.....	17	14	21	13	10	8	13	12	17	9	21	14	23	23	198	772
Cholera (English) ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Croup	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11
Dis. of Resp. System	20	29	23	18	30	38	74	45	49	36	37	41	42	39	501	1,365
Influenza†	21	...	...	...	...	...	...	1	...	...	2	1	2	1	7	49
Phthisis	22	10	15	10	12	7	11	8	15	17	16	10	8	13	152	562
Dis. of Circul. System	23	13	9	11	16	16	16	9	15	15	15	10	16	13	174	612
Violent Deaths	24	5	3	6	8	3	8	8	7	7	6	5	8	7	81	281
Inquest cases	25	14	9	13	13	11	20	14	18	10	19	10	12	17	180	638
Deaths in Pub. Inst.	26	18	18	18	35	26	19	22	13	16	19	32	11	27	274	1,094
Dispensary: visits pd.	27	283	272	302	280	254	298	370	368	307	348	318	359	290	4,049	13,845
Cases admitted to our own hospitals	28	30	28	28	37	32	28	26	27	34	30	32	13	35	380	1,870
Barom. (inches)	29	29.56	29.42	29.49	29.33	30.26	29.89	29.78	29.69	29.35	29.12	29.60	29.91	29.93	29.64	29.74
Attached Ther. °F...	30	54.77	53.23	53.54	52.38	49.62	51.69	47.31	48.92	43.08	44.54	47.08	47.58	42.54	48.95	52.96
Dry bulb.....	31	52.77	52.77	51.00	50.00	45.62	50.92	43.77	45.46	37.69	41.39	41.62	43.50	35.46	45.55	52.08
Wet bulb.....	32	50.38	50.08	49.08	47.46	44.00	48.77	41.92	43.92	36.23	39.92	40.15	41.83	33.54	43.65	48.04
Humidity	33	84.46	82.08	86.92	82.85	88.54	85.08	85.92	88.46	87.00	88.08	88.54	87.50	81.85	85.93	75.77
Mn. of highest reading	34	55.86	55.71	53.57	53.43	49.71	52.00	46.86	51.14	40.29	44.00	44.57	45.43	37.14	48.44	55.90
„ lowest „	35	47.57	43.86	43.14	41.29	38.00	38.14	34.14	38.43	33.86	34.71	35.86	39.71	31.86	38.51	43.06
„ daily range ...	36	8.29	11.85	10.43	12.14	11.71	13.86	12.72	12.71	6.43	9.29	8.71	5.72	5.28	9.93	12.84
Total rainfall (inches)	37	3.14	1.47	0.76	1.19	0.32	0.07	0.07	0.64	0.35	0.62	0.07	0.10	0.03	8.83	29.24
Wind { Direction ...	38	SE SW	SW	SE SW	SW	W SE	W SW	W NW	W SW	SW NW	SE	E	SE SW	SE	...	...
{ Force 0-6 ...	39	3	4	3	3	2	3	4	3	3	3	2	2	3	3	3
Amount of Cloud	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Birth-rate (Leeds) ...	41	28.0	30.3	27.6	31.6	30.0	29.4	27.4	29.4	28.3	29.6	28.5	22.7	31.2	28.8	29.4
Death-rate (Leeds)...	42	16.5	15.3	15.6	18.7	20.1	23.9	18.6	20.2	17.3	19.8	19.2	20.4	21.3	19.0	16.6
Death-rate (76 towns)	43	15.8	15.8	15.9	16.3	16.2	17.9	17.4	17.6	18.6	19.2	17.9	15.5	20.6	17.3	16.3
Birth-rate (76 towns)	44	28.2	29.3	29.0	30.5	30.3	29.0	27.8	27.5	28.1	28.4	29.7	21.6	32.4	28.6	29.7
D.R. lung dis. (Leeds)	45	3.4	2.7	2.1	3.5	4.5	8.7	5.3	5.8	4.2	4.4	4.3	4.9	4.6	4.3	3.1
D.R. 7 Zymotics ..	46	1.6	2.5	1.5	1.2	0.9	1.5	1.4	2.0	1.1	2.5	1.6	2.7	2.7	1.8	1.7

The Dispensary returns are furnished me by the kindness of the resident staff, and have regard to a week ended in each case a day earlier than that given in the heading.

The meteorological data are compiled from returns sent us by Mr. Crowther. They are uncorrected readings, made at 10 a.m. and 4 p.m. The humidity each week is the average of the humidities calculated on each of the thirteen observations of the wet and dry bulbs.

* Includes membranous croup. Line 19 includes non-spasmodic croup not returned as membranous. † Line 20 includes line 21.

TABLE F (2).

Shewing Births, Deaths, from all and certain causes, Home Patients of the Dispensary, admissions to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certain causes in Leeds: with the Birth and Death-rates from all causes in the 76 large English towns for each of the thirteen weeks ended 2nd April, 1904.

1904.		JANUARY.				FEBRUARY.				MARCH.					TOTALS OR AVERAGES.
		Jan. 9th.	Jan. 16th.	Jan. 23rd.	Jan. 30th.	Feb. 6th.	Feb. 13th.	Feb. 20th.	Feb. 27th.	Mar. 5th.	Mar. 12th.	Mar. 19th.	Mar. 26th.	Apr. 2nd.	
Total Births	1	247	241	260	252	254	252	264	245	217	252	258	238	236	3,216
Total Deaths	2	196	187	176	177	168	183	185	167	190	152	168	172	179	2,300
Under 1 year	3	45	45	33	35	47	40	56	34	38	36	30	39	37	515
1 to 2 years.....	4	25	16	20	16	10	17	20	13	19	7	20	17	14	214
2 to 5 years.....	5	15	17	10	17	12	6	15	16	13	13	12	15	17	178
5 to 60 years	6	64	56	63	58	47	52	61	62	61	54	64	54	68	764
60 yrs. and upwards	7	47	53	50	51	52	68	33	42	59	42	42	47	43	629
Deaths: Small-pox..	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	9	8	10	7	10	6	6	9	6	10	4	13	13	12	114
Scarlet Fever	10	2	3	...	2	4	2	1	...	1	...	2	2	...	19
*Diphtheria	11	1	1	1	3	...	1	2	...	4	...	1	2	3	19
Whooping-cough..	12	8	4	6	8	12	6	15	6	11	3	7	8	1	95
{ Typhus Fever.....	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Typhoid Fever ...	14	3	...	...	...	...	...	...	1	...	...	1	1	2	8
Other or doubtful	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea or Dysent.	16	2	...	...	...	4	...	3	...	...	...	...	1	3	13
All seven.....	17	24	18	14	23	26	15	30	13	26	7	24	27	21	268
Cholera (English) ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	19	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Dis. of Resp. System	20	67	45	46	28	30	38	25	36	45	37	37	40	37	511
Influenza†	21	...	2	...	2	...	2	...	3	...	...	...	4	1	14
Phthisis	22	15	14	15	15	12	12	18	13	16	16	16	11	17	190
Dis. of Circul. System	23	14	17	13	16	15	16	15	18	12	15	14	18	19	202
Violent Deaths	24	3	2	7	3	3	3	5	4	8	6	7	...	5	56
Inquest cases	25	12	15	14	8	16	13	19	13	20	13	19	10	12	184
Deaths in Pub. Inst.	26	27	31	30	24	32	28	21	20	29	26	24	21	24	337
Dispensary: visits pd.	27	358	393	333	296	268	355	366	359	326	319	326	320	346	4,365
Cases admitted to our own hospitals	28	31	31	26	25	27	21	16	20	20	27	22	18	18	302
Barom. (inches)	29	29.67	29.27	30.35	29.54	29.22	28.91	29.23	29.94	29.96	29.88	29.66	30.03	29.58	29.63
Attached Ther. °F...	30	44.69	45.46	47.23	46.69	45.31	45.08	44.39	45.08	42.54	42.62	41.54	49.46	44.25	44.95
Dry bulb.....	31	40.46	42.31	44.00	43.23	39.31	41.00	38.92	38.85	36.08	41.08	43.15	44.77	44.92	41.37
Wet bulb.....	32	39.00	40.31	42.31	40.77	37.69	39.00	36.15	36.62	33.92	39.00	40.92	41.15	40.83	39.04
Humidity	33	88.00	84.23	86.92	81.31	91.00	84.31	78.08	81.46	80.54	84.08	83.23	74.69	71.58	82.02
Mn. of highest reading	34	42.71	44.86	47.14	44.71	41.71	44.29	42.29	41.71	38.00	44.43	46.14	50.14	50.29	44.49
„ lowest „	35	35.14	36.29	36.14	37.86	35.57	36.14	33.86	35.29	31.14	33.29	33.71	34.57	35.57	34.97
„ daily range ...	36	7.57	8.57	11.00	6.85	6.14	8.15	8.43	6.42	6.86	11.14	12.43	15.57	14.72	9.52
Total rainfall (inches)	37	0.80	0.63	0.06	0.58	1.59	1.04	0.44	0.20	0.09	0.54	0.47	0.15	0.46	7.05
Wind { Direction ...	38	SE	SW	SW	SW SE	SE	SE SW	SW	SE SW	SE SW	SE NE	SW	NE	SW	...
{ Force 0-6 ...	39	2	4	3	3	2	3	2	2	3	2	2	2	2	2
Amount of Cloud	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Birth-rate (Leeds) ...	41	28.6	27.9	30.1	29.2	29.4	29.2	30.6	28.4	25.2	29.2	29.9	27.6	27.4	28.7
Death-rate (Leeds)...	42	22.7	21.7	20.4	20.5	19.5	21.2	21.4	19.3	22.0	17.6	19.5	19.9	20.7	20.5
Death-rate (76 towns)	43	20.3	19.0	18.1	19.4	17.2	18.4	18.5	17.5	18.6	19.0	19.7	18.7	18.7	18.7
Birth-rate (76 towns)	44	32.2	29.6	29.8	29.1	30.7	29.7	31.0	29.1	28.0	30.4	29.7	29.1	27.6	29.7
D.R. lung dis. (Leeds)	45	7.8	5.2	5.3	3.2	3.5	4.4	2.9	4.2	5.2	4.3	4.3	4.6	4.3	4.6
D.R. 7 Zymotics ..	46	2.8	2.1	1.6	2.7	3.0	1.7	3.5	1.5	3.0	0.8	2.8	3.1	2.4	2.4

The Dispensary returns are furnished me by the kindness of the resident staff, and have regard to a week ended in each case a day earlier than that given in the heading.

The meteorological data are compiled from returns sent us by Mr. Crowther. They are uncorrected readings, made at 10 a.m. and 4 p.m. The humidity each week is the average of the humidities calculated on each of the thirteen observations of the wet and dry bulbs.

* Includes membranous croup. Line 19 includes non-spasmodic croup not returned as membranous. † Line 20 includes line 21.

TABLE F (3).

Shewing Births, Deaths, from all and certain causes, Home Patients of the Dispensary, admissions to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certain causes in Leeds: with the Birth and Death-rates from all causes in the 76 large English towns for each of the thirteen weeks ended 2nd July, 1904.

1904.		APRIL.				MAY.				JUNE.					TOTALS OR AVERAGES.
		April 9th.	April 16th.	April 23rd.	April 30th.	May 7th.	May 14th.	May 21st.	May 28th.	June 4th.	June 11th.	June 18th.	June 25th.	July 2nd.	
Total Births	1	223	271	249	238	235	219	226	237	270	271	237	258	246	3,180
Total Deaths	2	197	169	141	148	151	143	173	164	142	145	161	107	138	1,979
Under 1 year	3	58	41	33	39	32	34	30	47	35	32	37	22	28	468
1 to 2 years.....	4	24	24	11	13	17	14	19	15	17	17	16	10	11	208
2 to 5 years.....	5	11	14	10	20	17	15	20	18	18	10	14	11	10	188
5 to 60 years	6	61	45	45	40	51	52	59	47	38	51	51	41	60	641
60 yrs. and upwards	7	43	45	42	36	34	28	45	37	34	35	43	23	29	474
Deaths: Small-pox..	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	9	8	17	8	10	13	10	15	15	20	14	10	9	11	160
Scarlet Fever	10	3	2	...	2	1	1	1	2	...	...	1	1	2	16
*Diphtheria	11	...	1	2	1	...	...	1	...	...	2	...	2	...	9
Whooping-cough..	12	14	6	1	5	4	8	10	4	8	3	7	2	...	72
{ Typhus Fever.....	13	...	...	...	..	...	...	...	...	...	...	...	...	...	...
{ Typhoid Fever ...	14	...	1	...	1	...	2	2	...	...	...	...	...	...	6
{ Other or doubtful	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea or Dysent.	16	...	...	1	...	...	...	...	2	...	1	2	2	1	9
All seven.....	17	25	27	12	19	18	21	29	23	28	20	20	16	14	272
Cholera (English) ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dis. of Resp. System	20	36	30	21	30	22	28	28	20	25	19	19	14	23	315
Influenza†	21	2	1	...	...	...	...	...	1	...	...	...	...	...	4
Phthisis	22	13	11	7	11	15	16	13	14	10	17	16	10	21	174
Dis. of Circul. System	23	16	9	15	15	18	10	15	10	10	14	17	8	7	164
Violent Deaths	24	7	7	4	5	6	4	3	8	3	5	7	2	7	68
Inquest cases	25	17	13	13	12	10	10	12	11	12	11	12	9	14	156
Deaths in Pub. Inst.	26	24	28	18	19	24	20	31	30	13	22	29	12	22	292
Dispensary: visits pd.	27	213	310	337	342	296	379	417	325	370	353	296	255	252	4,145
Cases admitted to our own hospitals	28	22	19	21	22	26	23	27	16	19	16	22	22	24	279
Barom. (inches)	29	29.66	29.52	29.91	29.82	29.63	29.78	29.85	29.81	30.02	30.01	29.77	29.89	29.86	29.81
Attached Ther. °F...	30	48.62	51.31	57.08	53.54	52.92	53.31	54.77	56.85	58.00	58.46	60.54	59.85	60.39	55.82
Dry bulb.....	31	48.62	51.08	54.08	53.08	52.31	54.46	56.08	57.77	60.54	57.92	62.00	60.08	65.54	56.43
Wet bulb.....	32	43.39	46.85	48.69	47.92	46.39	49.08	48.69	53.39	53.62	52.23	56.00	53.69	56.08	50.46
Humidity	33	66.62	73.85	68.39	68.46	64.92	68.77	59.15	74.92	65.15	67.46	66.23	65.46	55.62	66.54
Mn. of highest reading	34	52.71	57.14	60.86	56.57	57.43	57.00	61.14	63.43	65.57	64.14	66.43	64.00	70.57	61.31
„ lowest „	35	41.57	41.00	42.43	45.57	42.86	42.57	44.14	49.71	47.14	48.00	50.43	51.43	49.57	45.88
„ daily range ...	36	11.14	16.14	18.43	11.00	14.57	14.43	17.00	13.72	18.43	16.14	16.00	12.57	21.00	15.43
Total rainfall (inches)	37	0.15	0.80	0.10	0.05	0.81	0.33	0.12	0.59	0.49	0.13	0.33	0.23	0.27	4.40
Wind { Direction ...	38	W.NW	NW SW	ENW	NW SW	W SW	SW NW	SW W	SW	NE	NE	SW	NW	SW	...
{ Force 0-6 ...	39	4	2	2	2	2	1	2	1	1	2	2	2	2	2
Amount of Cloud	40	...	...	...	...	...	...	...	...	..	...	...	...	..	...
Birth-rate (Leeds) ...	41	25.8	31.4	28.9	27.6	27.2	25.4	26.2	27.5	31.3	31.4	27.5	29.9	28.5	28.4
Death-rate (Leeds)...	42	22.8	19.6	16.3	17.2	17.5	16.6	20.1	19.0	16.5	16.8	18.7	12.4	16.0	17.6
Death-rate (76 towns)	43	18.4	17.6	16.0	16.3	14.9	16.1	15.5	15.4	14.6	14.2	13.8	13.2	13.5	15.3
Birth-rate (76 towns)	44	29.2	31.5	30.0	30.2	28.7	29.7	29.3	24.4	31.7	30.7	29.4	29.1	29.5	29.5
D.R. lung dis. (Leeds)	45	4.2	3.5	2.4	3.5	2.6	3.2	3.2	2.3	2.9	2.2	2.2	1.6	2.7	2.8
D.R. 7 Zymotics ..	46	2.9	3.1	1.4	2.2	2.1	2.4	3.4	2.7	3.2	2.3	2.3	1.9	1.6	2.4

The Dispensary returns are furnished me by the kindness of the resident staff, and have regard to a week ended in each case a day earlier than that given in the heading.

The meteorological data are compiled from returns sent us by Mr. Crowther. They are uncorrected readings, made at 10 a.m. and 4 p.m. The humidity each week is the average of the humidities calculated on each of the thirteen observations of the wet and dry bulbs.

* Includes membranous croup. Line 19 includes non-spasmodic croup not returned as membranous. † Line 20 includes line 21.

TABLE F (4).

Shewing Births, Deaths, from all and certain causes, Home Patients of the Dispensary, admissions to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certain causes in Leeds: with the Birth and Death-rates from all causes in the 76 large English towns for each of the thirteen weeks ended 1st October, 1904.

1904.		JULY.				AUGUST.					SEPTEMBER.				TOTALS OR AVERAGES.
		July 9th.	July 16th.	July 23rd.	July 30th.	Aug. 6th.	Aug. 13th.	Au. 20th.	Aug. 27th.	Sept. 3rd.	Sept. 10th.	Sept. 17th.	Sept. 24th.	Oct. 1st.	
Total Births	1	231	221	241	270	227	280	265	257	247	204	254	226	221	3,144
Total Deaths	2	128	128	143	160	187	206	203	169	135	123	135	132	140	1,989
Under 1 year	3	26	31	50	51	71	100	114	75	53	48	41	44	43	747
1 to 2 years.....	4	10	7	14	19	19	26	9	19	15	12	13	11	10	184
2 to 5 years.....	5	12	12	11	17	11	6	5	6	7	8	7	3	7	112
5 to 60 years	6	51	48	42	43	47	42	39	36	30	32	46	42	47	545
60 yrs. and upwards	7	29	30	26	30	39	32	36	33	30	23	28	32	33	401
Deaths: Small-pox..	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	9	10	4	17	12	5	7	2	4	3	2	2	...	...	68
Scarlet Fever	10	3	...	2	1	2	3	1	...	1	...	1	1	2	17
*Diphtheria	11	...	2	1	1	...	...	...	1	...	...	1	1	...	7
Whooping-cough..	12	3	4	5	1	2	1	...	3	4	1	1	...	1	26
{ Typhus Fever	13	...	1	1	...	...	...	...	...	...	...	...	...	...	2
{ Typhoid Fever ...	14	1	3	1	2	1	2	1	1	1	4	1	...	...	18
{ Other or doubtful	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea or Dysent.	16	4	2	15	24	44	81	72	44	33	27	20	13	15	394
All seven.....	17	21	16	42	41	54	94	76	53	42	34	26	15	18	532
Cholera (English) ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	19	...	...	...	...	2	...	...	...	...	...	1	1	...	4
Dis. of Resp. System	20	15	20	16	21	15	12	11	15	8	13	6	19	22	193
Influenza†	21	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Phthisis	22	7	12	10	11	9	9	11	6	8	9	8	8	8	116
Dis. of Circul. System	23	13	7	14	14	13	13	11	13	9	7	15	7	12	148
Violent Deaths	24	6	1	4	3	4	1	8	1	1	6	3	8	6	52
Inquest cases	25	12	6	8	8	12	14	17	6	3	8	6	13	14	127
Deaths in Pub. Inst.	26	29	16	21	19	26	15	17	17	14	18	15	21	27	255
Dispensary: visits pd.	27	230	283	285	279	224	269	284	231	263	245	223	245	246	3,307
Cases admitted to our own hospitals	28	21	31	22	18	22	25	19	15	31	21	26	30	19	300
Barom. (inches)	29	29.97	29.94	30.00	29.78	29.90	29.88	29.72	29.89	29.81	29.85	29.88	30.12	29.84	29.89
Attached Ther. °F...	30	62.77	68.85	67.08	66.31	68.38	62.77	60.62	58.08	64.15	60.92	58.92	58.38	56.46	62.59
Dry bulb.....	31	65.62	72.31	68.08	64.38	71.92	62.92	59.77	58.85	67.54	61.46	59.62	58.15	54.92	63.50
Wet bulb.....	32	58.38	62.77	59.92	60.69	63.46	56.23	55.15	53.69	60.15	55.31	54.08	53.69	51.23	57.29
Humidity	33	64.62	56.38	60.15	79.54	60.00	65.15	73.92	70.92	63.31	67.23	69.62	74.31	78.00	67.93
Mn. of highest reading	34	71.43	79.29	74.14	68.71	77.14	67.14	67.43	62.14	72.71	65.57	65.43	64.57	61.29	69.00
„ lowest „	35	53.00	57.71	55.14	57.86	57.00	52.29	51.71	49.00	55.00	49.71	49.43	47.57	46.29	52.44
„ daily range ...	36	18.43	21.58	19.00	10.85	20.14	14.85	15.72	13.14	17.71	15.86	16.00	17.00	15.00	16.56
Total rainfall (inches)	37	0.02	0.29	0.57	0.62	0.21	0.35	1.47	1.33	0.27	0.06	0.06	0.06	0.34	5.65
Wind { Direction ...	38	SW	SW	SW E	NE SE	SE	W	W SW	SW W	W SE	SW	SE E	SE NE	SW	...
{ Force 0-6 ...	39	2	2	1	2	2	2	2	2	1	2	2	2	2	2
Amount of Cloud	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Birth-rate (Leeds) ...	41	26.8	25.6	27.9	31.3	26.3	32.5	30.7	29.8	28.6	23.6	29.4	26.2	25.6	28.0
Death-rate (Leeds)...	42	14.8	14.8	16.6	18.5	21.7	23.9	23.5	19.6	15.6	14.3	15.6	15.3	16.2	17.7
Death-rate (76 towns)	43	13.5	13.7	14.1	16.4	19.8	22.1	22.7	20.5	18.2	17.5	17.0	16.0	15.6	17.5
Birth-rate (76 towns)	44	29.3	28.5	29.3	29.9	26.4	31.7	30.4	29.6	27.7	29.2	28.9	28.1	28.7	29.1
D.R. lung dis. (Leeds)	45	1.7	2.3	1.9	2.4	1.7	1.4	1.3	1.7	0.9	1.5	0.7	2.2	2.6	1.7
D.R. Diarrhoea „	46	0.5	0.2	1.7	2.8	5.1	9.4	8.4	5.1	3.8	3.1	2.3	1.5	1.7	3.5

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The meteorological data are compiled from returns sent us by Mr. Crowther. They are uncorrected readings, made at 10 a.m. and 4 p.m. The humidity each week is the average of the humidities calculated on each of the thirteen observations of the wet and dry bulbs.

* Includes membranous croup. Line 19 includes non-spasmodic croup not returned as membranous. † Line 20 includes line 21.

TABLE F (5).

Shewing Births, Deaths, from all and certain causes, Home Patients of the Dispensary, admissions to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certain causes in Leeds: with the Birth and Death-rates from all causes in the 76 large English towns for each of the thirteen weeks ended 31st December, 1904.

1904.		OCTOBER.				NOVEMBER.					DECEMBER.				TOTALS OR AVERAGES.	YEAR.
		Oct. 8th.	Oct. 15th.	Oct. 22nd.	Oct. 29th.	Nov. 5th.	Nov. 12th.	Nov. 19th.	Nov. 26th.	Dec. 3rd.	Dec. 10th.	Dec. 17th.	Dec. 24th.	Dec. 31st.		
Total Births	1	241	266	250	224	237	225	219	214	244	218	251	216	216	3,021	12,561
Total Deaths	2	121	136	125	140	128	150	137	130	147	129	113	171	201	1,828	8,096
Under 1 year	3	43	48	36	41	42	40	32	34	40	29	21	35	36	477	2,207
1 to 2 years.....	4	8	6	9	16	9	12	11	6	10	14	9	8	11	129	735
2 to 5 years.....	5	3	7	4	7	5	7	6	4	5	6	3	4	7	68	546
5 to 60 years	6	40	52	45	40	42	62	48	54	53	42	38	68	80	664	2,614
60 yrs. and upwards	7	27	23	31	36	30	29	40	32	39	38	42	56	67	490	1,994
Deaths: Small-pox..	8	...	...	...	...	1	1	...	...	...	...	...	...	...	2	2
Measles	9	...	...	...	...	1	1	...	...	...	...	...	...	...	2	344
Scarlet Fever	10	...	...	...	2	...	...	1	1	1	...	1	1	...	7	59
*Diphtheria	11	...	...	3	2	...	2	...	...	1	2	2	2	1	15	50
Whooping-cough..	12	...	1	1	1	2	...	1	1	2	2	1	1	2	15	208
Typhus Fever.....	13	1	...	...	...	...	...	...	...	...	...	...	...	...	1	3
Typhoid Fever ...	14	1	2	1	...	1	2	1	1	...	3	1	2	...	15	47
Other or doubtful	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa or Dysent.	16	8	14	1	5	1	2	3	...	...	1	...	...	...	35	451
All seven.....	17	10	17	6	10	6	8	6	3	4	8	5	6	3	92	1,164
Cholera (English) ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	19	...	1	...	...	1	...	1	...	1	...	...	...	1	5	10
Dis. of Resp. System	20	7	17	35	33	35	36	38	22	36	38	20	42	64	423	1,442
Influenza†	21	...	1	1	...	...	1	1	...	1	...	...	1	7	13	32
Phthisis	22	9	15	9	7	8	16	14	12	17	5	5	14	15	146	626
Dis. of Circul. System	23	17	10	10	14	10	11	6	16	8	15	7	19	20	163	677
Violent Deaths	24	4	5	3	3	3	5	9	6	10	3	6	8	4	69	245
Inquest cases	25	10	11	9	8	10	12	15	13	16	9	16	16	18	163	630
Deaths in Pub. Inst.	26	23	28	15	16	25	30	27	26	16	23	24	28	20	301	1,185
Dispensary: visits pd.	27	231	270	241	357	310	362	293	332	294	297	287	314	234	3,822	15,639
Cases admitted to our own hospitals	28	28	27	22	47	22	38	44	28	34	22	22	20	28	382	1,263
Barom. (inches)	29	29.77	30.09	29.91	30.02	30.11	29.62	30.24	29.53	29.65	29.27	29.38	30.23	29.98	29.83	29.79
Attached Ther. °F ...	30	54.77	53.92	57.39	57.46	55.08	54.15	50.46	41.92	46.00	46.85	46.15	41.54	43.31	49.92	53.33
Dry bulb.....	31	52.46	52.39	57.31	49.46	51.77	50.23	45.92	36.23	44.08	41.15	44.69	33.15	41.69	46.20	51.88
Wet bulb.....	32	48.69	49.69	55.08	46.85	48.77	47.77	44.00	34.85	42.46	39.77	42.69	31.92	40.00	44.04	47.72
Humidity	33	76.15	82.77	86.08	82.38	80.23	83.15	86.08	87.00	87.38	84.77	85.23	84.23	85.92	83.95	75.10
Mn. of highest reading	34	57.00	56.14	61.14	56.14	54.71	54.43	50.57	40.00	46.86	46.00	46.86	36.00	44.43	50.02	56.21
„ lowest „	35	44.71	35.86	48.29	41.71	46.57	42.00	36.71	32.86	37.86	36.86	38.14	30.29	35.00	38.99	43.07
„ daily range ...	36	12.29	20.28	12.85	14.43	8.14	12.43	13.86	7.14	9.00	9.14	8.72	5.71	9.43	11.03	13.14
Total rainfall (inches)	37	0.14	0.06	0.16	0.08	0.03	0.91	...	0.61	0.01	0.58	0.74	...	0.12	3.44	20.54
Wind { Direction ...	38	NW SW	E SE	W SE	SE NW	SW NE	W SW	W	NW	SW W	SW	W SW	SW	W NW	...	...
{ Force 0-6 ...	39	2	2	2	2	2	3	2	2	2	2	2	2	3	2	2
Amount of Cloud	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Birth-rate (Leeds) ...	41	27.9	30.8	29.0	26.0	27.5	26.1	25.4	24.8	28.3	25.3	29.1	25.0	25.0	26.9	28.0
Death-rate (Leeds)...	42	14.0	15.8	14.5	16.2	14.8	17.4	15.9	15.1	17.0	15.0	13.1	19.8	23.3	16.3	18.0
Death-rate (76 towns)	43	15.1	15.2	15.9	15.0	14.9	15.7	16.6	17.3	21.6	18.5	19.2	19.4	22.4	17.5	17.3
Birth-rate (76 towns)	44	29.1	29.7	28.5	29.6	30.0	28.2	28.6	26.0	29.1	26.4	28.8	25.7	26.0	28.1	29.1
D. R. lung dis. (Leeds)	45	0.8	2.0	4.1	3.8	4.1	4.2	4.4	2.6	4.2	4.4	2.3	4.9	7.4	3.8	3.2
R. 7 Zymotics ..	46	1.2	2.0	0.7	1.2	0.7	0.9	0.7	0.3	0.5	0.9	0.6	0.7	0.3	0.8	2.6

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* Includes membranous croup. Line 19 includes non-spasmodic croup not returned as membranous. † Line 20 includes line 21.

TABLE F (6).

Shewing Births. Deaths, from all and certain causes, Home Patients of the Dispensary, admissions to the Fever Hospitals, and some of the Meteorological conditions and the Death-rates from certain causes in Leeds: with the Birth and Death-rates from all causes in the 76 large English towns for each of the thirteen weeks ended 1st April, 1905.

1905.		JANUARY.				FEBRUARY.				MARCH.					TOTALS OR AVERAGES.
		Jan. 7th.	Jan. 14th.	Jan. 21st.	Jan. 28th.	Feb. 4th.	Feb. 11th.	Feb. 18th.	Feb. 25th.	Mar. 4th.	Mar. 11th.	Mar. 18th.	Mar. 25th.	Apr. 1st.	
Total Births	1	243	278	258	278	251	261	237	222	245	231	260	243	248	3,255
Total Deaths	2	181	179	140	141	122	143	139	116	129	142	141	133	113	1,819
Under 1 year	3	33	31	33	27	25	25	33	20	24	37	41	37	31	397
1 to 2 years.....	4	9	8	6	4	8	9	7	3	11	8	11	8	4	96
2 to 5 years.....	5	10	3	2	9	3	7	4	11	3	6	6	7	8	79
5 to 60 years	6	66	69	52	55	43	51	50	49	64	50	48	44	37	678
60 yrs. and upwards	7	63	68	47	46	43	51	45	33	27	41	35	37	33	569
Deaths: Small-pox..	8	...	...	...	1	1	...	...	...	1	...	...	..	...	3
Measles	9	...	...	...	...	...	1	1	2	...	1	2	...	1	8
Scarlet Fever	10	...	1	...	2	...	1	2	4	1	...	1	1	1	14
*Diphtheria	11	2	2	...	3	...	4	1	...	4	1	...	3	...	20
Whooping-cough..	12	1	1	1	1	1	1	1	...	2	3	3	3	3	21
{ Typhus Fever.....	13	...	...	...	..	...	...	..	...	...	...	...	...	...	...
{ Typhoid Fever ...	14	2	1	1	...	1	2	3	1	...	3	1	...	1	16
{ Other or doubtful	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea or Dysent.	16	1	...	1	1	...	...	1	...	1	...	...	...	1	6
All seven.....	17	6	5	3	8	3	9	9	7	9	8	7	7	7	88
Cholera (English) ...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	19	...	..	1	...	...	...	...	...	...	...	...	...	...	1
Dis. of Resp. System	20	62	45	31	33	25	28	34	17	26	27	29	27	26	410
Influenza†	21	9	9	1	4	...	5	4	2	3	1	...	1	3	42
Phthisis	22	13	16	19	9	12	14	14	18	10	15	13	17	8	178
Dis. of Circul. System	23	14	15	10	12	10	8	6	9	14	12	7	8	10	135
Violent Deaths	24	12	11	6	4	4	10	3	7	9	3	5	3	2	79
Inquest cases	25	29	19	8	13	14	21	6	15	18	16	15	15	8	197
Deaths in Pub. Inst.	26	25	32	37	23	32	30	23	26	27	31	23	23	16	348
Dispensary: visits pd.	27	305	359	386	334	316	277	226	249	291	267	255	263	240	3,768
Cases admitted to our own hospitals	28	42	55	33	33	63	36	42	33	29	33	36	39	32	506
Barom. (inches)	29	29.88	29.94	29.76	30.32	30.06	30.17	30.15	30.02	29.54	29.39	29.07	29.72	29.74	29.83
Attached Ther. °F...	30	47.31	46.62	40.00	44.08	47.38	48.08	48.31	45.00	45.00	47.69	48.69	50.38	49.75	46.77
Dry bulb.....	31	45.77	41.92	33.15	41.77	45.38	43.38	47.08	39.77	42.23	44.85	48.15	48.92	48.92	43.92
Wet bulb.....	32	43.85	40.23	32.23	40.54	42.77	40.77	44.31	36.62	39.77	41.92	45.00	46.08	45.92	41.51
Humidity	33	85.62	86.92	88.31	90.31	80.85	80.77	80.77	75.46	81.62	79.31	78.54	81.00	80.08	82.29
Mn. of highest reading	34	47.86	45.14	36.71	45.43	48.57	48.71	50.00	42.71	45.57	49.71	52.43	54.71	52.29	47.68
„ lowest „	35	39.71	36.57	28.29	35.86	39.00	38.29	39.71	34.29	35.29	38.14	41.29	39.71	41.86	37.54
„ daily range ...	36	8.15	8.57	8.42	9.57	9.57	10.42	10.29	8.42	10.28	11.57	11.14	15.00	10.43	10.14
Total rainfall (inches)	37	0.02	0.35	0.10	0.05	0.36	0.02	0.35	0.24	0.50	0.58	0.65	0.18	0.39	3.79
Wind { Direction ...	38	w	w	SE E	SW	w	w SW	w	NE NW	w SW	SW	SW	SE E	SW	...
{ Force 0-6 ...	39	2	3	2	2	3	2	2	2	3	3	3	2	3	2
Amount of Cloud	40	...	...	...	...	...	...	...	...	..	...	...	..	..	...
Birth-rate (Leeds) ...	41	27.8	31.8	29.5	31.8	28.7	29.8	27.1	25.4	28.0	26.4	29.7	27.8	28.3	28.6
Death-rate (Leeds)...	42	20.7	20.4	16.0	16.1	13.9	16.3	15.9	13.3	14.7	16.2	16.1	15.2	12.9	16.0
Death-rate (76 towns)	43	19.9	17.5	18.1	18.4	18.0	17.4	17.3	15.7	17.1	17.2	15.8	15.9	15.7	17.2
Birth-rate (76 towns)	44	30.7	30.2	28.1	29.8	30.7	30.1	29.4	26.2	29.2	28.5	29.8	30.0	29.6	29.4
D.R. lung dis. (Leeds)	45	7.1	5.1	3.5	3.8	2.9	3.2	3.9	1.9	3.0	3.1	3.3	3.1	3.0	3.6
D.R. 7 Zymotics ..	46	0.7	0.6	0.3	0.9	0.3	1.0	1.0	0.8	1.0	0.9	0.8	0.8	0.8	0.8

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